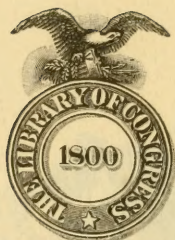


FOUR SEASONS IN THE GARDEN

BY

EBEN E. REXFORD





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FOUR SEASONS
IN THE GARDEN



Flowers are Love's truest language; they betray,
Like the divining rods of Magi old,
Where precious wealth lies buried, not of gold,
But love—strong love, that never can decay!

PARK BENJAMIN: Flowers Love's Truest Language.



Flowers are words
Which even a babe may understand
Bishop Cope



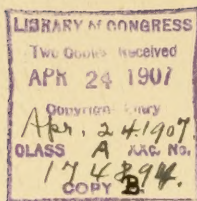
FOUR SEASONS IN THE GARDEN

BY
E. Rexford
EBEN E. REXFORD

WITH TWENTY-SEVEN ILLUSTRATIONS
AND WITH DECORATIONS BY
EDWARD STRATTON HOLLOWAY

PHILADELPHIA & LONDON
J. B. LIPPINCOTT COMPANY

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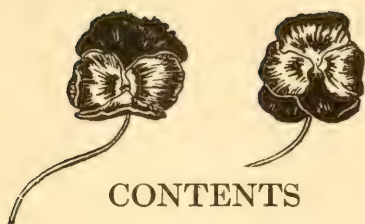


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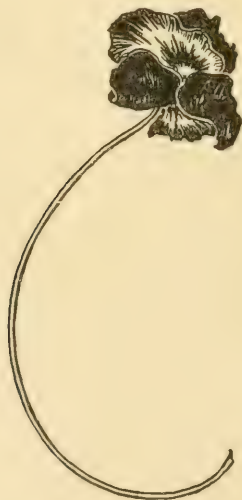


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MAKING AND CARE OF THE LAWN



God Almighty first planted a garden.

BACON: Of Gardens.

How lush and lusty the grass looks ! how
green !

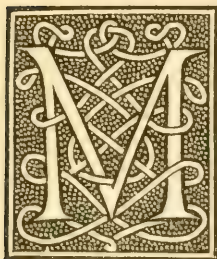
SHAKESPEARE: Tempest.



Not wholly in the busy world, nor quite
Beyond it, blooms the garden that I love.

TENNYSON: The Gardener's Daughter.

MAKING AND CARE OF THE LAWN :: ::



MOST suburban people want a lawn, with flower-beds and shrubs about the house. Some begin by planting shrubs or making flower-beds, expecting the lawn to follow. They have a vague idea that it is an easy matter to make a lawn,—in fact, some persons seem to think the lawn will make itself. The natural consequence of this way of thinking is, that such persons seldom have a lawn that is worth calling one. In improving the home-grounds, the first thing to be considered is the formation of the lawn. When that is made, and not until then, flower-beds may be made and shrubs planted in such a manner as to make them permanently effective. This cannot be accomplished if the lawn has to be made to fit an already planted yard.

Lawn-making is not so difficult as most persons seem to think. You must begin right if you would attain a satisfactory degree of suc-

MAKING AND CARE

cess. The first thing to do is to grade the ground evenly. Most persons prefer a lawn that slopes away from house to road in an almost imperceptible incline of surface. Such a lawn is easier to make than a level one, because any little departure from a perfectly even surface will be far less noticeable. To secure the necessary slope, earth will have to be filled in near the house if the lot is a comparatively level one. Wherever there has been an excavation made for the house-walls or a cellar, there will generally be enough earth near the house to furnish all the filling needed in making the required slope. This soil, which is almost always hard, should be worked over until it is as fine and mellow as possible, for a good lawn cannot be made from a coarse and lumpy soil.

If the soil is not rich, it should be made so. I would advise the use of bone-meal in liberal quantity in preference to barn-yard fertilizer, because it never introduces the seeds of weeds into the lawn, as manure from the stables is very sure to do. Coarse bone-meal, in the proportion of a half pound to each square yard, will give a soil of ordinary quality strength enough to produce an excellent growth of grass.



A FINE BIT OF LAWN

OF THE LAWN

After you have made the soil fine and mellow by working it thoroughly with hoe and rake,—adding the bone-meal the last time you go over it,—level it as evenly as possible, beginning at the house and working towards the front and sides of the lot. If some portions of it seem less firm under foot than others, beat them down until the entire surface seems alike in this respect. If this is not done it will settle unevenly.



IT is very important that a good quality of lawn-grass seed should be used. You cannot secure a deep, thick, velvety sward with ordinary grass-seed. There are many kinds of lawn-grass “mixtures.” Nearly all kinds sold by dealers of established reputation are good. These “mixtures” are greatly preferable to any selection the amateur gardener can make, because they are composed of the seeds of such grasses as are best adapted to the production of a good sward. They have been chosen for this purpose by men who have made a study of lawn-making, and we can depend on them to do all that is claimed for them if we do our part of the work well. The price

MAKING AND CARE

asked for the best kinds of lawn-grass seeds may tempt some to substitute a cheaper article which ignorant or unscrupulous dealers may claim to be as good as the best, but whoever does this will be making a mistake. The best is the cheapest.

It will be seen, in reading the catalogues of the seedsmen, that a thick sowing is advised. Some persons have told me that they believed this to be advice given with a view to selling a larger quantity of seed, and they have accordingly ignored it and bought a smaller quantity than was advised. The result is invariably unsatisfactory. You will be obliged to wait one or two years for a good sward if you sow your lawn thinly, but thick sowing will give you a very satisfactory sward the first year, and a thick, deep one the second season. The extra amount of money required for thick sowing will be found well invested.

The proper time for sowing the seed is on a still, rather damp day. If a brisk wind is blowing the seed will be scattered where you do not want it to go. Even a slight breeze will carry it quite a distance, and the variations of the wind at sowing-time will be shown on the lawn by thick grass here and thin grass there,

OF THE LAWN

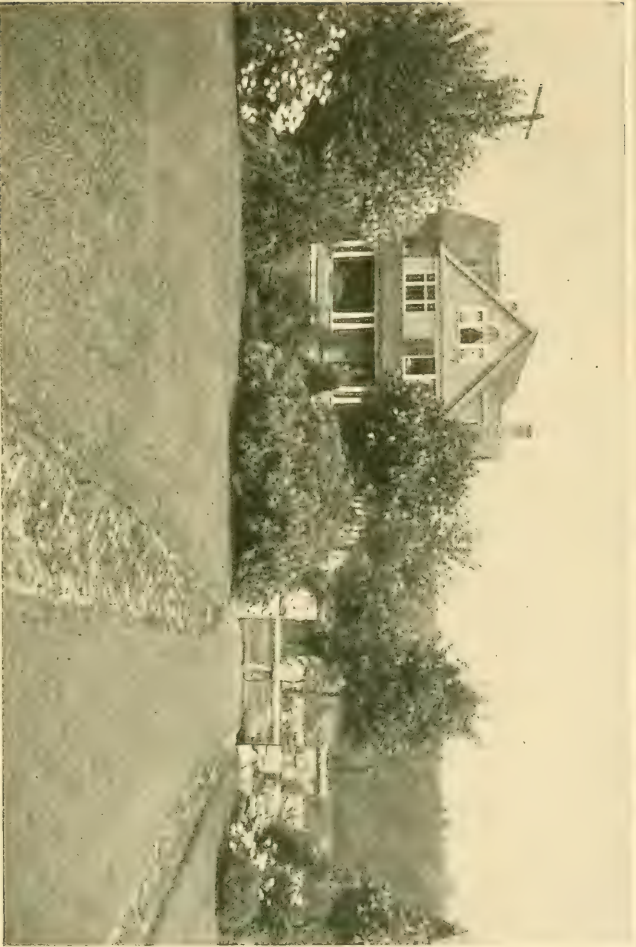
thus giving a spotted effect which can only be remedied by a second sowing on the places where the grass is thin. In a still day, and a damp one, when the air is rather heavy, the seed can be scattered with a reasonable degree of evenness by the amateur gardener. It is a good plan to sow across from north to south, and cross-sow from east to west. In this way you are pretty sure to miss no part of the ground. As a general thing the seed will germinate in four or five days, and in a week the soil will show a film of green over its entire surface. A month later the soil will be quite hidden by the grass. Then you can form an opinion of what your lawn will be when the sward is fully established on it. It will take it all of one season to thicken up and "stool out," but while it is doing this it will afford a vast amount of pleasure to the maker and his family. No lawn is at its best before the second or third year.



MOST amateur lawn-makers are sorely tempted to make use of the lawn-mower before the newly seeded lawn is ready for it. I would earnestly advise waiting until the grass gets to be at least four or five inches tall before

MAKING AND CARE

beginning to clip it. It should be allowed to get such a start that mowing off the top of it will not interfere with root-action sufficiently to injure it. About all that should be done in the early stages of mowing a newly made lawn is to clip off the blades of grass, leaving the crown of each plant untouched. Later, when the stooling-out process has taken place, you can set the mower-knives to cut lower without any risk to the health of the plants, and the result will be a sward that looks and feels like velvet. A lawn with such a sward is good for years if proper care is taken of it. But *never* shave it, as many do, thus destroying the greatest charm of it. If you cut it too close, it will take on a rusty, brown look from the dead grass-leaves which are always to be found at the bottom of the sward. There should always be grass enough left standing to hide this collection of *débris*, which cannot be prevented from accumulating. If the season is a rather wet one, it may be necessary to use the lawn-mower three times a week, but in an ordinary season twice a week will be quite enough. Never allow the grass to get the start of you if you want your lawn to have the attractiveness every well-kept lawn ought to possess, for it will be found im-



LAWN EFFECTIVELY SET OFF BY SHRUBS AND TREES

OF THE LAWN

possible to cut it smoothly with the ordinary lawn-mower when it has been neglected for several days. The way to keep it looking well is to give it regular and careful attention.

The question will probably suggest itself: What is meant by the term "proper care" in addition to the mowing and raking of the lawn? It consists in keeping the soil well supplied with nutriment, sufficient to meet all the demands of the grasses of which the sward is composed. The idea seems to prevail that grass will grow anywhere and under all conditions—that all one has to do, in fact, is to give it a chance to get a start, and thereafter it will take care of itself. Such is not the case, however. It is true that it will *live* indefinitely, but it will not be a satisfactory existence to the owner of the lawn. It will take on a pinched, starved look after a little, utterly at variance with one's idea of the ideal lawn. Grass, like all other plants, exhausts the nutrifying elements of the soil, and unless more nutriment is supplied there will be a constant deterioration in the quality of the sward. The secret of a successful lawn—the thing of beauty which may be made a joy as its wants are given attention—consists in feeding well the various grasses of which its

MAKING AND CARE OF THE LAWN

sward is composed. Every lawn should be treated to a good top-dressing of lawn fertilizer in spring and again in August. These two applications of fertilizer will keep the grass in good health and make it vigorous and luxuriant year after year. In these days of scientifically prepared fertilizers it is an easy matter to procure one especially adapted to the requirements of the lawn at a cost but slightly exceeding that of ordinary barn-yard manure to those living in city or village. This fertilizer is composed of various elements of plant-growth so proportioned that most satisfactory results are sure to follow its use.



FLOWER-BEDS: THEIR MAKING AND CARE

From hearts of friends the sweet of love hath
passed,

I know not why, or when:

But you—fair, faithful Blossoms! to the last
Keep fragrance—now, as then.

SIR EDWIN ARNOLD: *The Faithful Flowers.*

Heart's ease or pansy, pleasure or thought,
Which would the picture give us of these?
Surely the heart that conceived it sought
Heart's ease.

SWINBURNE: *A Flower Piece by Fanten.*



Sweet letters of the angel tongue,
I've loved ye long and well,
And never have failed in your fragrance sweet
To find some secret spell,—
A charm that has bound me with witching power,
For mine is the old belief,
That midst your sweets and midst your bloom,
There's a soul in every leaf !

M. M. BALLOU: Flowers.

FLOWER-BEDS: THEIR MAKING AND CARE



WOULD find a place for the flower-beds at one side of the house, if possible, and well back towards the rear, thus carrying the suggestion of isolation between house and street to the farthest possible limit. In locating the flower-beds in front of the house we are quite sure to convey the impression that we put them there for the admiration of the passer-by rather than the enjoyment of the family. Such ought not to be the case. The flower-bed ought to be where it will afford most pleasure to the household. If the conditions which prevail would not allow me to place them well towards the rear of the grounds, I would have them near the house,—along the walls of it, in fact,—thus keeping the lawn intact by preventing any infringement on its dignity. The beds near the house should be reserved for annuals and low-growing perennial plants as a general thing, though tall-

FLOWER-BEDS: THEIR

growing sorts can often be planted in nooks and corners and against a wide space of windowless wall with fine effect. I would not advise using the two classes together to a great extent, however. Give the hardy plants a place of their own, where they can receive the care they require, which is quite different from that required by the annuals.

In the beds given over to annuals, during the summer, bulbs can be grown to excellent advantage. These should be near the house, where their beauty can be enjoyed by its occupants without their being obliged to go out-of-doors to pay them a visit. The plants will have completed their flowering before the time comes to plant annuals among them. This can be done without disturbing them, if one is careful in stirring the soil for the reception of seed. It will not be necessary to go down into the soil with rake or hoe deep enough to reach the bulb. Leave the foliage untouched, as it is quite necessary that it should remain until the bulb has completed its annual growth, which takes place immediately after flowering. As soon as the growing period is over, this foliage will ripen and fall off, and there will be no disfigurement of the bed from it.



THIS ARRANGEMENT OF BEDS IS PLEASING FROM THE PORCH

MAKING AND CARE

No garden should be without its collection of bulbs. By the use of this class of most brilliant and beautiful flowers we can extend the season of bloom at least a month, thus brightening and seemingly shortening what would otherwise be a rather dismal, cheerless interval between the going of the snow and the coming of the earlier border-flowers. They like a deep, rich, mellow soil of loam and sand, and this soil also suits most annuals well. They should be planted in the fall. Late September and early October is the best time to do this work, as it can be done leisurely, therefore is likely to be well done. It is also to the advantage of the bulbs that it be done before cold weather sets in, as this enables them to become well established before the ground freezes. If planted late, much of this work on their part will have to be done in spring, at a time when all the energies of the plant ought to be concentrated in the production of flowers. By all means have some Hyacinths and Tulips and Daffodils, with clumps of Crocus and Snow-drop, to usher in the spring before winter seems to have really taken its departure. Bulbs cost but little in dollars and cents, and they require but little attention, but they afford a wonder-

FLOWER-BEDS: THEIR

ful amount of pleasure. Coming, as they do, so far in advance of all other garden-flowers, we appreciate them more than almost anything else we can grow in the garden.

The best annuals for the amateur gardener to grow are those whose merits have been fully proved by long years of cultivation. These, for the most part, are sturdy, self-reliant kinds, which give large returns in bloom for a small amount of care. Among the best annuals for the amateur I would name the following: Phlox Drummondii, Sweet Peas, Petunias, Asters, Ten-week Stock, Calliopsis, Balsam, Morning-glory, Mignonette, and Sweet Alys-sum. All these, with the exception of the Aster and Stock, will come into bloom quite early in the season, and continue to produce an abundance of flowers until frost comes if they are kept from ripening seed. I would advise sowing the seeds of these flowers in the beds where they are to remain during the summer, between the first and the middle of May at the North. In the latitude of Washington they can be sown a fortnight earlier. The amateur gardener is not successful, as a general thing, in his or her attempt to gain a month or six weeks by starting plants into early growth in

MAKING AND CARE

the living-room. There the conditions are all against a healthy and vigorous growth of seedling plants. Instead of gaining by early sowing we are pretty sure to lose by it, as house-grown plants are almost always so lacking in vitality that they suffer by transplanting to the open ground. Plants from seed sown at that time will generally come into bloom before the early-started plants become strong and well established.

In addition to the annuals named above I would advise the liberal use of Pansies, which can be grown from seed for late flowering, or from plants bought from the florist for spring blooming, also of Tea Roses, which seldom outgrow the limits of the annual-plant bed. By the judicious cutting-back of such branches as have borne flowers from time to time during the season, in order to encourage new growth, they can be made to bloom throughout the entire summer and late into the fall. No flower is more beautiful or more fragrant than those of this class of Roses.

I would plant hardy perennials along the sides of the home lot. Here they will hide the fence, should there be one, and afford a background against which the beauty of the lawn

FLOWER-BEDS: THEIR

will be strongly emphasized. Here I would also plant such hardy shrubs as deserve a place on the small lawn, grouping those of similar habit, and scattering tall, strong growers among the border plants. If the owners of adjoining lots can work in harmony, very pleasing effects can be secured by this style of planting. To secure the best results low-growing plants should be given a place next to the street, gradually increasing the height of the border as it recedes, thus bringing the tallest plants at the sides of the house and well to the rear. In this way we form a sort of background against which to view the entire lawn and house. The general effect will be found very satisfactory.

For groups of shrubbery we have no finer plants than the *Spiræas* and the *Hydrangea*. When planted singly they are never so charming as when massed together, thus producing a strong effect. Our best hardy large shrub is the *Lilac*. Every yard ought to have three or four of its best varieties. If I could have but one shrub it should be this. *Syringas*, *Weigelias*, and *Halesias* are excellent shrubs, of very easy culture. Bear in mind that a few shrubs, well grown, are much more satisfactory than a



A SYMMETRICAL HYDRANGEA

MAKING AND CARE

large number of inferior ones. Also do not overlook the fact that small grounds cannot accommodate many large plants, such as most shrubs will become in a few years. Therefore, to avoid overcrowding, plant sparingly, and allow for future development. When a shrub loses its individuality in this manner its beauty and usefulness are at an end.

Roses of the hardier class, of which all gardens should have a good collection, can be grown to better advantage if planted by themselves. There they can be given the treatment they require without interference from other shrubs. They are somewhat exclusive in their tendencies, and always seem to resent any attempt on our part to make them grow among less aristocratic plants. They are never able to forget their royal lineage, and demand the best places and the most attention. But we forgive them their exactions because of their beauty, and are always glad to do their bidding. A garden without its roses is not living up to its privileges.

The busy gardener—that is, the gardener who is occupied during the greater part of the day with business or household duties—will find hardy perennial plants more satisfactory,

FLOWER-BEDS: THEIR

all things considered, than any others. They require the least care. Once established, they are good for years. Some begin to bloom quite early in the season. Others bloom in mid-summer, and some are in their prime when frost comes. Nearly all of them are profuse bloomers, and most of them are extremely brilliant in color. For early flowering I would advise the *Dicentra*, the *Peony*, and the *Lily of the Valley*. A little later the herbaceous *Spiræas* will appear upon the scene, followed by the *Larkspurs* and the earlier *Phloxes*. Then comes the *Hollyhock*—perhaps the most attractive of all our hardy plants—and the new *Rudbeckia*, which is the most brilliant of all plants when in the prime of its golden glory, and the late varieties of *Phlox* will prolong the dazzling pageant of late autumn's splendor until the withering touch of the frost is laid upon everything in the garden.

Shrubs and perennials can be planted in fall or in spring. If fall-planting is most convenient, do it as soon after the foliage has ripened as possible. Early fall planting allows the plant to become somewhat established before winter sets in. Spring planting should not be attempted until the ground is in good

MAKING AND CARE

condition for working. Allow the surplus moisture to drain away from it before you stir it. You cannot set out plants satisfactorily in a soil heavy with water. At the North, the ground is not in proper condition for this work before the last of April, as a general thing.

In planting the border avoid straight lines and all formality. Let it curve gracefully next the lawn. Where it is widest, plant your groups of shrubs and such tall plants as the Hollyhock, the Rudbeckia, and the Larkspur. Give the lower growers, like Dicentra, Coreopsis, and the dwarf Phloxes, a place in the foreground. If you know your plants,—as every gardener ought to,—it will be an easy matter to so group and combine them that none of the smaller ones are hidden by the larger ones. It will also be an easy matter to get harmonizing colors together. In order to make sure of this, if you are not familiar with what you plant, study the catalogues of the florists well. These generally give height, color, and season of bloom, and if you are governed by this information, you need make but few mistakes in planting. Whatever mistakes you make this year can be rectified next year. The gardener who loves his work will

FLOWER-BEDS: THEIR

always study effects and plan changes by which improvements can be made, and year by year the home-grounds will take on additional beauty. The making of a fine garden is, like the construction of a lawn, an evolutionary process, and the work required by it cannot, in the very nature of things, be done in one year or in two. This is one of the charms of gardening. What we do this season suggests something new for next season. There is always novelty and variety about it.

I have named but few kinds among the long list of annuals, perennials, and shrubs. I have confined mention to those which I know from personal experience to be most satisfactory in the hands of the amateur gardener. I would not advise going outside this list until experience justifies its extension. When one has grown hardy plants successfully—and not till then—he may safely undertake the cultivation of kinds which are more exacting in their requirements. The amateur who confines himself or herself to a small list of strong and robust plants at the beginning, gives evidence of possessing a wisdom which will lead to better things by and by.

To grow either annuals or hardy perennials

THE BEAUTY OF AN INFORMAL PLANTING



MAKING AND CARE

well, grass and weeds must be kept from encroaching upon their domain. Among the annuals one will have to do more or less hand-weeding while they are small. This is rather hard, unpleasant work, but it is work which must be done if you would grow good flowers. Most of this work has to be done during the early part of the season, when the flowering plants are getting a start. If it is done thoroughly then, there will not be much weeding to be done after July. In the border the hoe can be made to do what the hand has to do among the annuals, thus greatly lightening the labor. Keep the soil stirred well about all the plants and fertilize it well. Good flowers cannot be grown in a poor soil. The fertilizer advised for use on the lawn is a good one for general purposes. Worked into the soil of the beds where annuals are grown, it produces a strong, healthy growth of foliage and flowers. Each spring it should be used liberally in the border. Scatter a handful of it about each plant, and then dig it into the soil well with hoe or trowel. The shrubs should be treated to an application of it also, in order to bring about a luxuriant development. While there are many good fertilizers on the market, I know of noth-

FLOWER-BEDS: THEIR CARE

ing better, in a general way, than coarsely ground bone-meal. The finely ground article brings about more immediate results, but the good effects of it are not so lasting.

Perennials grown from seed will not bloom until the second season, therefore those desiring bloom the first season from this class of plants will have to purchase plants from the florist. A collection of hardy perennials gives larger returns for labor and time expended on them than any other class of plants the amateur can grow. For those who have but little leisure to devote to gardening I would advise the use of them exclusively. A small bed of annuals will require more care than a large collection of perennials. But I would advise the cultivation of both classes, for each has its peculiar charm. The gardener who grows plants because he loves them will not be satisfied unless his garden contains some of all kinds.



A GARDEN OF NATIVE PLANTS



The shad-bush, white with flowers,
Brightened the glens; the new leaved butternut
And quivering poplar to the roving breeze
Gave a balsamic fragrance.

BRYANT: The Old Man's Counsel.



Because its myriad glimmering plumes
Like a great army's stir and wave;
Because its golden billow blooms,
The poor man's barren walks to lave:
Because its sun-shaped blossoms show
How souls receive the light of God,
And unto earth give back that glow—
I thank Him for the Goldenrod.

LUCY LARCOM: Goldenrod.

A GARDEN OF NATIVE PLANTS



URING the last few years a decided change has taken place in one phase of American gardening. The attention of the home gardeners has been called to the beauty and other good qualities of our native plants, and it is becoming quite common among those who are setting out shrubs and hardy plants to give the preference to those of American growth. This is as it should be. Our national pride ought to influence us to choose native plants instead of foreign ones whenever equally desirable and meritorious specimens can be found at home. That we have many plants quite as desirable as foreign ones comparatively few Americans understand. They have seen the discrimination which has existed so long in favor of imported plants and has practically crowded out our native species, and, quite naturally, they have come to the conclusion that this discrimination

must be based on the superiority of the foreign kinds. But such is really not the case.



IN this paper I shall name a few only of the shrubs and plants which can be procured in most localities at the North which will be found best adapted by the amateur to lawn and garden culture. After experimenting with these for a season or two, he can enlarge his collection and add to it year by year from the almost inexhaustible stock which can be drawn on from field, forest, and pasture.

The White-flowered Elder grows almost everywhere. It is a pleasing shrub as to foliage. Its habit of growth is spreading and rather symmetrical. When in full bloom it is almost covered with immense flat panicles of creamy white flowers so delicate in form and so arranged that the sight of them suggests lace of the finest pattern. The flowers last for about a fortnight. They are followed by fruit. One variety has scarlet berries, the other dark purple ones. The scarlet-fruited sort is most showy. Well-grown specimens of this shrub are quite as ornamental, when in bloom, as any Hydrangea, and their flowers



ELDER IN BLOOM—A REPRESENTATIVE NATIVE PLANT

NATIVE PLANTS

are a thousand-fold more dainty and beautiful. In fall, when the berries ripen, they make the shrub most attractive. The Elder is very easy to transplant, very easy to grow, and adapts itself readily to any soil.

The Sumach is a strikingly beautiful shrub. During summer its tufts of long leaves are suggestive of the fronds of some of the larger ferns. In fall it takes on the richest shades of red, yellow, maroon, and bronze. A bush of it always makes me think that Mrs. Browning must have had it in mind when she wrote that line in "Aurora Leigh" about

"The wayside bush afire with God."

We have but one other native plant that can equal it in splendor of autumn coloring, and that is the Ampelopsis, or Virginia Creeper. When the Sumach bears fruit it has an additional attraction. Its berries are small individually, but there will be hundreds in a cluster, and the velvety coat of glowing crimson which incases them makes the spikes in which they are borne a striking feature of decoration, especially if the plant is so placed that it can have the background of an evergreen for the display of its beauty. As this plant often

grows to be ten, twelve, or fifteen feet tall, it is better adapted for locations in the rear of the grounds than for a more central position.

Viburnum opulus, better known in country neighborhoods as High-bush Cranberry, is a shrub of very easy culture. It is a near relative of the *Viburnum* more commonly known as Snowball or Guelder-rose. In that well-known variety the whole cyme is turned into a showy mass of sterile flowers, and no fruit is ever produced. The native variety is quite as attractive as the cultivated kind as regards habit of growth and foliage. In fall it is far more attractive, for the leaves change from green to pale yellow and red. But the most attractive feature of the plant is its great clusters of bright crimson berries, which generally remain on the branches all winter. We have no better plant for the winter decoration of the lawn. Its berries are quite as brilliantly effective as any flowers could be, and especially so when the chief color in the landscape is white, whose contrast throws them into vivid relief. The great value of the shrub will be readily recognized by those who have given some study to the selection of plants suitable for the winter decoration of the grounds about the dwelling. In

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winter we cannot have flowers out-of-doors, but by making use of fruit-bearing shrubs we secure good substitutes for them, and the garden may be relieved of the monotony of color which has heretofore characterized it. By planting these brilliantly fruited shrubs near evergreens or in front of them we get a combination of colors which furnishes contrast and brings out the artistic value of each in a most delightful manner. It is high time we gave this phase of gardening more attention, for our yards ought to be so planted as to be beautiful at all seasons. There is no reason why they should not be if we are willing to study out the problem of selection and combination carefully and intelligently.

The Golden-rod makes an excellent garden plant. To bring out its beauty fully, associate with it the Aster, which is almost everywhere found growing alongside it. The pale rosy violet and lavender of the latter heighten the yellow of the Golden-rod and make it truly golden in its richness of depth and tone. If you have an out-of-the-way corner, I would suggest that you give these two plants a place in it where they can have everything their own way. Don't attempt to train them,—simply

plant them and let them take care of themselves; they will do it, and surprise you with the luxuriance they take on in their new quarters. The fact is they never have half a chance in roadside and pasture, and they are quick to take advantage of an opportunity to do themselves justice. You will find that a corner given up to these two plants will prove one of the most attractive places in the garden.

Thalictrum—Meadow Rue—is one of the most beautiful border plants I know of. Its abundant foliage has all the grace and delicacy peculiar to certain varieties of the fern family, and so close is its resemblance to some of the ferns that most persons consider it one of them. It is, however, in no wise related to them. It grows in a compact mass, above which its tall flower-stalks are lifted to a height of two or three feet, bearing plummy tufts of greenish-white flowers tinged with purple, with yellowish anthers drooping from fine filaments in such a manner as to give the plant an extremely airy and graceful appearance. A more delightful plant cannot be imagined. Nothing equals it for cutting for use in vases containing flowers of rich color. Its neutral tints harmonize with them perfectly and afford all the contrast



CLEMATIS PANICULATA

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needed to bring out fully all the beauty of the colors used in combination with them. Its foliage is as useful in cut-flower work as its blossoms are. Whoever gives this plant a place in the garden will be delighted with it.

Clematis flammula, better known as Virgin's Bower, or Traveller's Joy, is one of the loveliest flowering vines I have ever seen; not because of a wealth of rich color, but because of simple beauty. It grows rapidly under domestication, often making a growth of twenty or twenty-five feet in a season after becoming well established. In September it is covered with pure white flowers borne in spreading clusters along the branches set out from the main stalks. These flowers, seen against the background of green foliage, are always sure to attract attention because of their profusion and the airy, graceful disposal of them over the plant. The effect is quite like that of great flakes of snow lightly adhering to the many branches. I much prefer this native *Clematis* to any of the hybrids of the *Jackmanii* type. We can *depend* on this under all conditions. This cannot be said truthfully of the large-flowered section. This *Clematis* will be found one of the most useful of all plants for

cutting from with a view to using it in vases in combination with other flowers. Its bloom, because of color and daintiness, harmonizes with all other flowers and is never obtrusive. Flowers of this kind are always needed where much of the beauty of effect in the combination depends on contrast and relief. As a general thing flowers having the qualities needed to afford contrast and relief are so self-assertive that they are not willing to take a subordinate position. This the Clematis is willing to do, and it does it so charmingly that it never loses anything by its unselfishness.



I HAVE mentioned the Ampelopsis as being very attractive in fall, but it deserves a more extended mention in order to call attention to its many other merits. It is of the easiest culture. Obtain a small plant with a bit of root attached and it will seldom fail to grow. As soon as it becomes established it will send up vines which grow twenty feet in a season, and spread out in all directions to such an extent that the growth from one root often extends across the entire side of a good-sized house, and can be made completely to cover it. There are

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two varieties in cultivation. One has little sucker-like discs which attach themselves to boards, brick, or stone, thus furnishing support for the branches which send them out. This variety needs no assistance in climbing, as it is fully able to take care of itself. The other sort has tendrils like those of the grape. These furnish support for the vines by twining about something or by thrusting their fingers into cracks and crevices. But as these cracks and crevices are not always at hand, and there is not always something in reach about which the tendrils can twist themselves, it will be necessary to assist the plant by stretching wires from point to point or tacking the vines here and there to the wall. This variety is most luxuriant in growth and is therefore most popular among those who like a great show of foliage, but the other variety is really the most satisfactory in the end, as it makes a closer, shorter covering for a wall, and is in this respect an excellent substitute for the English Ivy. In October both varieties take on a magnificent color, in which crimson and maroon predominate. No flowers were ever more vivid than the foliage of these vines in mid-autumn. English people are beginning to appreciate

the wonderful beauty of this plant, and it is being used in England extensively; but I fear the climate there will not bring out its beauty as strikingly as our frosty climate does. If I were asked to choose one vine, foreign or native, for general use, I should select the *Ampelopsis*. Any one can grow it. It flourishes in any soil except a very dry, sandy one.



ANOTHER excellent vine is *Celastrus scandens*, commonly known as Bittersweet. It will grow to almost any height provided it is given something to twine about. It is prodigal in its production of branches and foliage. We often come across it in its native habitat with a small tree as its support, and the tree is so laden that it fairly bends beneath the weight of the vine. Its foliage is a bright, pleasing green. Its clusters of small, greenish-white flowers are succeeded by fruit which is enclosed in a shell of orange. In fall, after frost comes, this shell divides in three pieces, and the sections are reflexed enough to show a red berry within. The effect of these orange-and-red clusters pendent from every branch and borne in great profusion all over the vine

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is very charming. In this vine we have another plant with which great things can be done in the way of making home-grounds attractive in winter.

Vernonia, or Ironweed, is a vigorous plant, suited to any soil, with large heads of intense purple flowers. It is well adapted to the back row of the border or for planting among shrubs.

The *Asclepias* are of easy culture, growing in any ordinary soil and obtainable almost anywhere. For the border they are far superior to nine-tenths of the plants we import.

Cornel, or Dogwood, which can be found growing plentifully in almost all swampy places, is well adapted to the garden. There are several varieties, some having yellow and some white flowers, succeeded by scarlet, blue, and white berries. One variety is the Red Osier, which has branches covered with a brilliant red bark. The effect of these branches when seen against a snowy background in winter is very pleasing.

The *Amelanchier*, better known as Shadbush, whitens the places in which it grows with a profusion of bloom in early spring. It is an excellent shrub for the lawn. It can be trans-

A GARDEN OF

planted with ease and safety. Because of its vigorous habit it is advisable to give it a place somewhat in the background. In time it becomes quite a tree.

The Andromeda is one of the most beautiful of all our native shrubs. It blossoms in April. Its flowers are drooping and bell-shaped. Of this plant Emerson says, "Few exotics have such elegance of appearance as this," and he was a close observer of nature.

Clethra alnifolia, or Sweet-pepper Bush, is worthy a place in any garden, and ought by all means to be included in every collection of American plants. It has fine foliage, and its spikes of white flowers, produced during nearly the entire summer, are as attractive to us as they are to the bees, which delight in its spicy sweetness. It is of the easiest culture.

Hamamelis, or Witch-hazel, is a native shrub which has many and peculiar attractions. It is equally interesting to the farmer, who finds it putting forth its fringy flowers just as the first snows begin to fall; to the artist, who sees in it most fantastic lines of leaf and blossom, and to the botanist, who sees in its strange habit of flowering at the beginning of winter a hint of a descent from some form which had, no doubt,

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climatic conditions to contend with quite unlike those of to-day. Have you ever noticed its habit of shooting its smooth, black seeds, when ripe, to a distance, thus distributing itself over a wider territory without the assistance of man or bird? As a purely decorative shrub few things can excel it. Its large leaves of golden-green changing to a bright yellow in fall, its double crop of blossoms and seeds at the same time, and its vigorous habit of growth will be made the most of by every wise amateur gardener.



THE lover of ferns will find it an easy matter to domesticate many of the most attractive varieties if he or she will be content to take young plants. They should be removed from their native haunts with a good amount of soil adhering to their roots. Give them, if possible, a shady place to grow in, and make the soil as light as that in which they originally grew. It is well worth while to get a wagon-load or two of soil from the woods for the especial use of these plants. In lifting them, wrap each one as soon as lifted in stout paper and set them in a deep basket, applying enough

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water to saturate the soil clinging to the roots. Do not plant them in the border until after sundown. If the next day is sunny, shade them well and shower them frequently. In some instances most of the old fronds will die off, but if care is taken in lifting and planting, and the necessary amount of shade and water is given, few of the leaves will be lost.

All the shrubs and plants mentioned can be removed safely in spring. In planting them have the soil mellow, make the hole large enough to accommodate all the roots without cramping them, and settle the soil about them by applying water after you have them covered to the depth of two or three inches. Then fill in with the dryer soil and press it down well with the foot all about the plant.

It will be found that all native plants take on a strength and luxuriance of growth under domestication such as they never exhibit when growing wild.



BACK-YARD GARDENS AND WINDOW-BOXES

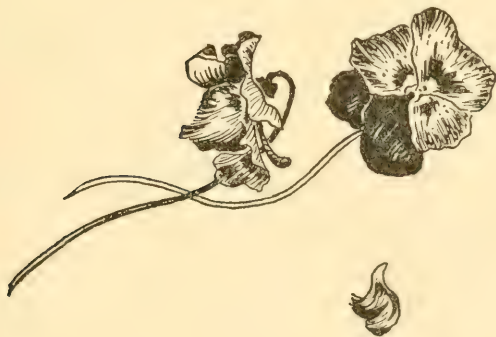


Wondrous interlacement !
Holding fast to threads by green and silky rings,
With the dawn it spreads its white and purple
wings;
Generous in its bloom, and sheltering while it
clings,
Sturdy morning-glory.

HELEN HUNT: Morning-Glory.

Here are sweet peas, on tiptoe for a flight;
With wings of gentle flush o'er delicate white,
And taper fingers catching at all things,
To bind them all about with tiny rings.

KEATS: I Stood Tiptoe upon a Little Hill.



As for marigolds, poppies, hollyhocks, and valorous sunflowers, we shall never have a garden without them, both for their own sake, and for the sake of old-fashioned folks, who used to love them.

HENRY WARD BEECHER: A Discourse of Flowers.

BACK-YARD GARDENS AND WINDOW-BOXES



WHEN I not long ago visited a friend who lives among huddled city houses, a thought of green things growing in the fragment of a back yard which it was my privilege to enjoy made me wonder if it were not possible to do something to improve the condition of things in some of these substitutes for a real home, and one day I suggested to my friend the advisability of making an experiment in that direction. "It seems to me you might grow a few common flowers," I said.

"I wish I might," she responded, "but I don't believe anything would grow in a back yard. I don't see how it could. The weeds won't, and if they can't flourish, how could you expect flowers to?"

"Let's look it over," I said, and we went out to take observations. The prospect was far from encouraging, I had to admit. There was

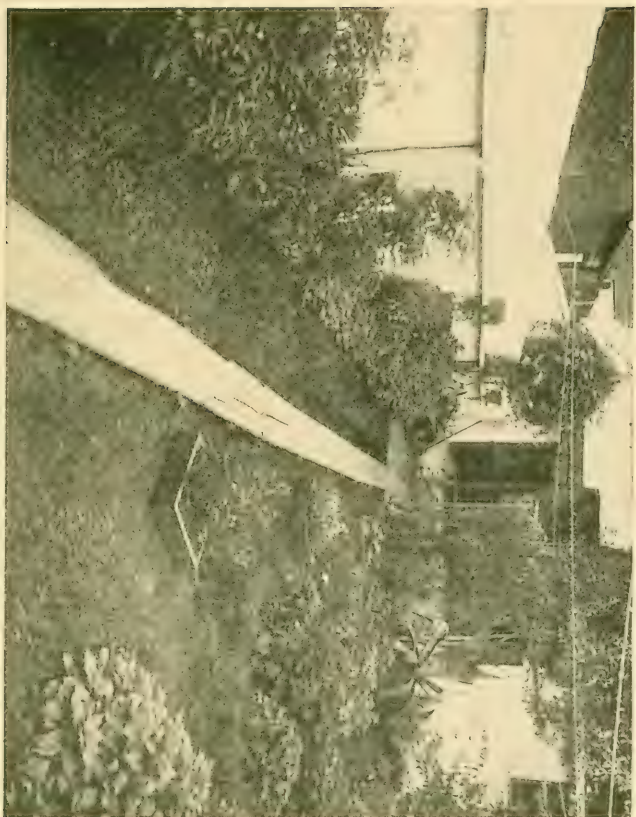
BACK-YARD GARDENS

the usual accumulation of old boxes, cans, and other refuse which one sees in such places. In this respect this particular back yard was like most of its kind, but it had the advantage of a little sunshine, and that was a great deal in its favor when viewed from the stand-point of the amateur gardener.

"I think we can do something with it," I said, after looking it over. "At any rate, we'll try. Turn the boys over to me for a time, and we'll see what can be done in the way of a beginning."

There were two small boys in the family, and, like all boys, they were fond of experimenting in any new field, and when I explained my garden-plan to them, they were enthusiastic over it, as I had expected they would be. Boys, as a general thing, like to dig, and hoe, and spade in the soil. There is enough of the primitive husbandman left in them for that.

We set to work at once, before enthusiasm had a chance to cool. The first thing we did was to dig a hole in one corner of the yard in which to bury all the rubbish that could not be burned up. When looked at from the gardener's stand-point, the soil was hard and unpromising to a discouraging degree, but I



MAKING THE BEST OF CIRCUMSTANCES

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knew that it could be made mellow, if not really mellow, by putting a good deal of hard work on it, and was not disheartened by its stubborn look. In fact, I think I rather enjoyed the prospect of the hard fight before us, for I have always taken considerable delight in attempting to overcome obstacles after being told by others that there was no use in trying. I like to convince people that where there's a will there's a way, if one only sets out with the determination to find it.

After we had buried some of the refuse and burned up the rest, the yard was so greatly improved in its appearance that the boys said, "It paid to slick up, even if we didn't get any flowers," and began to take commendable pride in what had already been accomplished. "But we'll have the flowers," I said. "Don't worry about that."



THEN hard work began in earnest. We spaded up the ground all around the edge of the lot. This was real labor, for the tramping of many feet for years had made the earth almost as solid as a brick. It came up in coarse chunks, and the vigorous

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application of an old axe was required to reduce it to the consistency of stove-coal. "It doesn't look as if roots could make much headway in it, does it?" I said to the boys. "But we haven't done with it yet. Just wait."

We left it exposed to the action of air and sun. Water was poured over it frequently, and the boys were instructed to "keep working at it" by odd spells. And they did so faithfully, with axe and hoe, until at last it began to look something like soil.

Then I sent the boys out with baskets, and the keeper of a livery-stable near by gave them the sweepings of the stalls, on condition that they gathered them for themselves and made the stalls clean. This they were glad to do, as I had told them how necessary it was that the soil of the back yard should have some fertilizing element added to it if we expected to grow good plants in it. These sweepings were not ideal fertilizer, by any means, but they were a great deal better than nothing, and we mixed them well with the coarse earth, thus furnishing it with nutriment for the plants we would attempt to grow, and making it lighter and mellow. It was far from being an ideal soil when we were ready for planting our seeds, but

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it was so much better than the original soil of the back yard that I felt greatly encouraged.

“We will not try to grow anything but the most vigorous plants in it this year,” I told the boys. So our choice was confined to Petunias, Phlox, Calliopsis, Nasturtiums, Zinnias, Asters, Poppies, Marigold, Sweet Peas, and Morning-glories. These last two we put along the fence that separated the yard from the next neighbor’s, and the Zinnias were planted in the background, where they would suggest a hedge at the boundary of the lot. The Sweet Peas were given a width of coarse-meshed wire netting as support, and the Morning-glories were trained on stout strings running from the ground to the top board of the fence. By the middle of June no one would have known that the dilapidated old fence existed, for it was completely covered with vines and flowers. The other plants began to bloom in June, and as no seed was allowed to ripen, they kept on blooming most of the season, with more or less profusion. The Asters were in their prime in September and lasted until cold weather came, thus making the late autumn display quite as fine as that of mid-summer.

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NOW, the amount of pleasure derived from this little back-yard garden could not be computed, as it had a value quite beyond the measure of dollars and cents. The mother found a tonic in out-door employment. She averred that it rested her to work among her flowers, and I have no doubt that it did so, because it was a change and a recreation. The boys not only enjoyed the companionship of the flowers, but they learned many lessons from their work as amateur gardeners which may be of great benefit to them later in life. "It was a relief to me to know where they were," their mother said. "If they had not been in the garden, they might have been in places where boys ought not to be. The garden has been a great success as a means of keeping them at home. And *as a garden*,—why, you haven't any idea how much it has been to all of us. It has kept me from getting homesick. And the neighbors have enjoyed it almost as much as I have. Every day they came in to look it over, and they hardly ever went away without a flower or two, and it made me feel quite rich in being able to give them. A success? Why, of course it has been a success—one of the successes we mean to repeat every year after this,

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since it has proved to us that we need not go without flowers even if we haven't anything but a city back yard to grow them in."

Of course the flowers in this back-yard garden were not up to the standard of the professional gardener in any respect; but that was not to be expected, because of existing conditions which could not be fully overcome. But they were, all things considered, eminently satisfactory, for they proved, as my friend said, that it is possible to grow flowers under difficulties, if there is a will to grow them. Next summer this back yard of which I have written—which is a veritable and not an imaginary one, as some may think—will be in better condition to grow plants than it was last season, and a greater measure of success may be expected. It was an object-lesson to those who saw it, and I venture the prediction that there will be several back-yard gardens in that vicinity the coming summer.



LET me sum up the important items which the foregoing has attempted to make plain for the benefit of the back-yard gardener: Make the soil as fine as possible. Work it over

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and over. Don't be discouraged if it resists stubbornly at first—you can conquer it if you put enough work on it. Chop it, spade it, pound it,—do anything that is calculated to pulverize it.

It will need some kind of fertilizer, and if you cannot obtain stable-manure for it, get a few pounds of bone-meal and mix into it. This will cost but a few cents, and will furnish a good deal of plant-food. Indeed, it is quite equal to barnyard fertilizer so far as nutriment is concerned, but it does not help to lighten the soil as that does.

Do not make the mistake of selecting plants difficult to manage. Choose the hardier sorts—those which have the reputation of being able to take care of themselves pretty well. Keep the soil open about them and allow no weeds to grow among them. If this is done, you may have a very good substitute for the garden which possibly you have seen growing under more favorable conditions.

Encourage the children to work in it daily. Flowers are safe companions, and a playtime spent in happily working, or even idling, among the plants is so much toward health of body and mind.

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BUT, as has been said, not all dwellers in the crowded city can have even back-yard gardens. Most of them live so far above the "ground floor" that the thought of a garden seems absurd, because of its utter impossibility. But those who have windows to which some sunshine comes can have, as a substitute for the back-yard garden, a window-box large enough to contain a dozen or more plants, and from these, properly managed, it is a comparatively easy matter to secure a good many flowers throughout the season—enough, indeed, to make the lives of those who have their homes in tenement-houses and flats so much brighter and pleasanter than they would be without them that they cannot afford to forego the privilege of having them.

In making a window-box garden it matters but little of what the box is made, if it be stout and large enough to hold sufficient soil. Have it at least ten inches in depth and a foot in width. Such a box will contain a good deal of soil and will be quite heavy, therefore it is important that it be fastened securely to the window or wall. Do not be satisfied with nailing it in place, but provide it with stout braces running from the front edge to the wall below.

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Fill it with the best soil you can get. If this is lacking in nutritive quality, add some bone-meal to it. Mix at least a teacupful of it into enough soil to fill a box of the dimension mentioned, to begin with, and along about midsummer apply as much more. This will keep your plants growing well throughout the season.

Most persons who attempt window-gardens in boxes fail with them, therefore the impression prevails that it is not an easy phase of gardening. But the reason of failure, nine times out of ten, is that not enough water is given to supply the needs of the plants. A little is applied in the morning and more later in the day, and because the surface of the soil looks moist, the owner takes it for granted that it must be damp all through. An examination would convince her that a few inches below the surface the soil is almost, if not quite, dust-dry. The fact is, evaporation takes place so rapidly from a box exposed to the action of air and wind and sunshine, as most window-boxes are, that small amounts of water do but little towards supplying the plants with the moisture needed at their roots. To keep it in proper condition at least a pailful of water should be applied every day, and in very hot weather



EFFECTIVE USE OF WINDOW-BOXES

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even that may not be enough. Make it a rule to use so much water that some will run away through the cracks and crevices of the box. When this takes place you may be quite sure that all the soil in the box is saturated with it. And if you keep it saturated throughout the season you can grow plants in any window-box. This is the secret of success, provided, of course, you have chosen plants adapted to window-box culture. Do not make use of delicate varieties, but use Geraniums, both flowering and fragrant-leaved sorts, Coleus, Heliotrope, Fuchsia, Lantanas, Petunias, Phlox, Nasturtiums, Mignonette, Sweet Alyssum, and such vines as Moneywort, Tradescantia, Vinca, Othonna, Lobelia, and Saxifraga. Plant these at the sides of the box, to droop over and hide it.

A Morning-glory at each end can be trained up and over the window, and will provide you with a floral awning if you give it something to clamber over in the shape of a framework projecting from the top of the window.

The window-box garden can easily be made a success if the advice given above is followed. But fail to supply a liberal amount of water, and failure is a foregone conclusion.

SPRING IN THE GARDEN

And buttercups are coming,
And scarlet columbine,
And in the sunny meadows
The dandelions shine.

CELIA THAXTER: Spring.



The aquilegia sprinkled on the rocks
A scarlet rain; the yellow violet
Sat in the chariot of its leaves; the phlox
Held spikes of purple flame in meadows wet,
And all the streams with vernal-scented reed
Were fringed, and streaky bells of miskodeed.

BAYARD TAYLOR: Mon-Da-Min.

Daffodils,
That come before the swallow dares, and take
The winds of March with beauty; violets dim,
But sweeter than the lids of Juno's eyes,
Or Cytherea's breath; pale primroses,
That die unmarried ere they can behold
Bright Phœbus in his strength—a malady
Most incident to maids; bold oxlips and
The crown-imperial; lilies of all kinds,
The flower-de-luce being one!

SHAKESPEARE: Winter's Tale.

SPRING IN THE GARDEN : : :



THE amateur gardener is often at a loss as to what flowers to select for her garden. She would like kinds which give the greatest amount of bloom throughout the season and which require the least possible amount of care. The woman who is in this quandary will do well to remember that years of trial have proved the superior merits of what may be called the "old-fashioned flowers," and it will be wise for her to select from them, for the most part, the garden she is planning for the coming summer. These flowers will never disappoint; they do not ask for constant care; they give rich returns for all the attention expended on them; and—anyone can grow them.

I am so often asked to give a list of a dozen kinds of annuals which I consider best adapted to culture in the ordinary garden that it may not be amiss to give it here. It is: Aster, Pe-

tunia, Phlox Drummondii, Calliopsis, Nasturtium, Sweet Pea, Morning-glory, Verbena, Scabiosa, Balsam, Ten-week Stock, and Marigold. For the benefit of those who may like more variety, or have a large garden to fill, I will add a supplementary list of another dozen of very desirable kinds: Candytuft, Sweet Alyssum, Salpiglossis, Celosia, Portulaca, Snapdragon, Eschscholtzia, Zinnia, Dianthus, Nicotiana, Salvia, and Centaurea. These two dozens do not exhaust the list of really good plants by any means, but they include the best of the kinds which the average amateur will find it advisable to undertake the cultivation of.

Right here let me offer this advice: Do not let the enthusiasm of the spring season get the control of your good judgment and tempt you into undertaking more than you feel sure of your ability to carry out satisfactorily. Bear in mind the fact that a good garden represents a considerable amount of hard work, also that a neglected garden is one of the sorriest sights imaginable, and do not make the mistake of beginning what you will not be likely to complete. A few flowers, well grown, will afford a hundred-fold more satisfaction than a large

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number of inferior ones. It is much better to concentrate your attention than to scatter it over so wide a field that justice cannot be done to the occupants of it.

I am well aware that the impression prevails among many amateur gardeners that by sowing seed early in the season, in the house, it is possible to secure a much earlier crop of flowers than can be obtained from plants grown wholly in the garden. The theory of this belief is good, but the test of it will convince anyone that there is a wide difference between the theory and the successful practice of it. Ninety-nine times out of a hundred plants grown from early-sown seed will die before the time comes when it is safe to put them out-of-doors, and the one possible exception will be so lacking in vitality that plants from seed sown in the garden after the weather becomes warm will get ahead of it, if it happen to survive the ordeal of the change from the house to the ground, which it seldom will. In our overheated living-rooms, with their fluctuating temperatures, it is almost an impossibility to grow good plants of any kind, and especially seedlings. They are too delicate to withstand the difficulties to which they are subjected.

The professional florist succeeds with his seedlings because he has all conditions necessary to success under control. This is not possible in the living-room, hence our failure in our attempts to grow plants from seed there. This being the case, our efforts to "get the start of the season" with early-sown plants are quite certain to prove abortive, and I would not encourage the amateur to undertake this phase of gardening. If seed is sown in the garden when the soil is warm, and the weather has become settled, we will get flowers quite as early as we need them. The spring-flowering plants and shrubs will hardly have completed their blossoming-season before the earliest of the annuals will begin to bloom. Therefore we can well afford to wait for the annuals.



THE first thing to be done in garden-work is the spading of the beds. Do this about the first of May at the North. Throw up the soil in clods, and let it lie as it falls from the spade for three or four days, exposed to the action of the air and sun and possible showers. By the end of that time a good deal of moisture will have drained and evaporated from it, and

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it will be in a condition to pulverize easily. Work it over until it becomes fine and mellow. This is important, for the delicate roots of seedling plants will find it difficult to make their way in a coarse, hard soil. Also, fertilize it well. This is another item of great importance, for in order to secure a vigorous development we must feed our plants well. Those living in the country, where barnyard manure is easily procurable, will doubtless depend on this as a fertilizer,—and, indeed, there is nothing superior to it in nutritive value,—but there is one serious objection to its use, and that is the certainty with which weeds are introduced into the garden by it. There will be all the weed-pulling one cares to do under the most favorable circumstances, and barnyard manure will add vastly to the crop. I have for some years past depended on commercial fertilizers in the flower-garden, and I am well satisfied with the result. By their use I get fine plants and no weeds. I do not mean that the person who uses these fertilizers will not have weeds to fight, but there will be only those which come from seed in the soil. The gardener who lives in city or village will find these fertilizers on sale at very reasonable rates at all places where agricultural

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articles are sold. They can be varied to suit the peculiarities of the soil in different localities. The dealer of whom you purchase will be able to tell you what kind will be likely to prove most effective with you if you give him an idea of the kind of soil you intend to use it on. He will also be able to advise the proportion in which it should be used. These matters I cannot give definite advice about, because soils vary to such an extent in kind and quality that what would apply in one place might not be the proper kind to use a few miles away.

Seed-sowing is a delicate operation and must be done carefully, or there will be sorry failures. The seed of many kinds of plants is so fine that it will fail to germinate if covered deeply,—in fact, it does not require any covering. In sowing Petunias, Portulacas, and others of that class I would scatter the seed *on the soil*,—which should, of course, be as mellow as possible before entrusting seed to it,—and then go over the bed with a smooth board and press the soil down firmly. This forces the seed into the earth, and makes the soil so compact that it will retain all the moisture necessary to bring about germination. Larger seed can be covered lightly by sifting fine soil

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over it, after which the pressing-board should be used. If you want the seed you use to grow, never bury it at the bottom of a furrow, after the manner of the market-gardener. The seed of his plants is quite unlike that which you make use of in the flower-garden, and can stand a treatment which the other cannot.

I have made a practice of late years of sowing flower-seed in small beds, rather than in the large beds where my plants are to grow in summer. I find that this saves a good deal of work, because it can be concentrated on the bit of ground given up to the production of seedlings. Here I grow them until they are large enough to transplant.

Transplanting should be done, if possible, on a cloudy or showery day. This is work that must be done carefully, for young plants are tender things, and a little rough handling means death to them. I use a stick a little larger than a pencil to make a place in which to set the young plants. This I insert in the bed to the depth of an inch or an inch and a half, according to the length of the root of the plant I am working with. Having made a number of holes, I lift my seedlings from the bed in which I have started them, being careful to

disturb their roots as little as possible, and, taking one lightly between the thumb and finger of the left hand, I drop its roots into the hole made for it, but do not let go of it. With the right hand I press the soil firmly, but gently, about the suspended roots. When a row is filled with plants I water them, using for this purpose a pot having a spout that does not throw a large stream, for not a great deal of water is needed by each plant. If a large stream is turned upon them, there is danger of washing them out or loosening them. Just enough water should be used to saturate the soil about the plant and settle it about its roots. Then I arrange some sort of shade for them. It is never safe to trust to cloudy weather in transplanting. The sun may assert itself suddenly, and in a few minutes the newly-set plants will be wilted. Always provide some means of averting this danger. I make a sort of cone of thick paper, run a sharpened stick out and in through one side of it to support it, and insert the other end of the stick in the ground alongside the plant I desire to shade. This keeps the sun away as effectively as a little umbrella would, and as it does not touch the ground, the air has a chance to circulate

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freely about the plant. Such a protection I find vastly preferable to shingles or pieces of board set between the plants and the sun, as the sun will shift, while this protection will not, and your plants may be exposed and as much injury be done thereby as would have resulted from the entire absence of protection. Keep your plants shaded, and shaded completely, until they begin to grow.



WEEDING should begin as soon as there are weeds to pull. Do not let them get the start of you. If you do, you will find it a difficult matter to get the start of them. They are aggressive, and they mean always to take possession of the garden if it is possible for them to do so. But give them to understand that you will not allow this by waging war on them early in the season and showing them no quarter. Those growing close to your flowering plants will have to be pulled up carefully to avoid loosening the roots of the others, but those between the rows can be kept down by the hoe, which should be used daily. If there are not many weeds for it to cut down, the loosening which

the use of it will give the soil will be of great benefit to your plants, especially if the season happen to be a dry one. I find that many persons fear to stir the soil of the flower-garden in a dry period, thinking that they will add to the harmful effects of the drought by so doing. In this they are mistaken. If the surface of the soil is allowed to crust over, as it will in a "dry spell," it can absorb no moisture from dews and slight showers. But if we keep the soil loose and open by frequent stirring, it acts like a sponge and absorbs whatever moisture there may be in the atmosphere. Therefore do not be afraid to use the hoe freely in dry weather.

If watering is necessary, do it after sundown, when evaporation takes place more slowly than during the day. And do not apply it through a sprinkling-nozzle. This scatters it all over the soil and does superficial work, because not enough water falls about the roots of the plants, where it is most needed. Use a pot having a long spout, which will make it an easy matter for you to put the water where it belongs. If you begin to water your plants, you must keep on doing it as long as the dry period lasts.

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THE arrangement of plants in the garden is a matter which ought to be carefully considered before beds are made for them. It is easy to spoil the effect we have in mind, when we think of the garden in its prime, by so locating our plants that they interfere with one another both in regard to size and color. We may put large plants in the foreground, where they will hide others of lower growth, and we may so arrange colors that they give a most discordant effect. These mistakes, however, can easily be avoided if we are willing to study the catalogues of the florists before we locate our plants in the garden. Know the height of each plant you use, and so place it that it will show to the best possible advantage. In this way you can secure a graduated effect—the tall-growing kinds forming a background for the lower growers, and the dwarf kinds occupying a place at the front where their charms will not be hidden. We give too little thought to arranging our plants effectively, and the result is very unsatisfactory. Give this part of garden-work a good deal of careful study, and you will be surprised at the improvement resulting from it.

The haphazard use of colors ought always to

be guarded against. I have seen gardens spoiled by unfortunate color combinations. It is just as easy to prevent this as it is to avoid the mistake of putting plants of different sizes where they do not belong. Study up on the color question, and so arrange your colors that there will be harmony instead of discord. In order to do this most effectively, I would advise you to make a diagram of your garden before you begin work in it, and mark down in each bed the name and color of the plant it is to be filled with. This will greatly simplify matters, you will find, when the hurry of garden work is here, and it will do away with the mistakes you will quite likely make if you go to work without some definite plan to work to.

I am not a great admirer of "carpet-bedding," but I am fond of arranging my plants so that color contrast is secured. It is an easy matter to make a most attractive circular bed by planting white, rose, and pale-yellow Phlox in rows. These colors harmonize charmingly, and the contrast between them heightens the beauty of each. The pleasing effect of such a bed is increased if we use as a border the Madame Salleroi Geranium, with its pale-green and creamy-white foliage. This har-

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monizes perfectly with the Phlox, and is extremely attractive in itself. I consider it our very best plant for edging. It forms a rounded, compact mass of foliage, requires absolutely no training, and is attractive throughout the season. Those having old plants of it which they have carried through the winter can break them apart and plant each piece in the beds where they are to grow in May, setting them about eight inches apart. Not one in twenty will fail to grow. By the end of June they will have grown to such a size that they meet in the row, and from that time to the coming of frost they will be quite as attractive as the flowering plants they are used with.

If a brilliant bed is desired, use scarlet *Salvia* in the centre, with *Calliopsis* surrounding it. Do not depend on one row of the latter, but use plants enough to make a broad mass. White Candytuft or Sweet Alyssum would make an effective edging for such a bed.

Eschscholtzia, massed, makes a most gorgeous showing. It is one of our best yellow flowers, and will be found very effective in combination with the scarlet or crimson of *Salvia* or Phlox.

I would never advise the use of seed in which the various colors are mixed. With it you are likely to get some most inharmonious results. A bed of Phlox from "mixed" seed will probably give you pink, scarlet, lilac, and mauve colors, and the effect of these in combination will be positively painful to the sensitive eye. Such discords cannot be avoided unless you use seed in which each color is by itself. The expense may be a little more, but the result will be so satisfactory that you will think the extra money well invested.



WE have some plants which we neglect too much. One of these is the *Amaranthus*. It is not particularly pretty on close inspection, but when seen from a little distance it is extremely attractive when grown in masses. A circular bed of it in full bloom, its rich, dull red surrounded by the orange-yellow of the *Calliopsis*, will be sure to attract attention and challenge admiration. Its foliage is quite as attractive as its flowers, being of the same rich color. For rich its color is, though it may seem dull when compared with other reds.

A most pleasing "tropical" effect can be

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secured by using *Ricinus* in groups, either by itself or in combination with such plants as *Cannas* or *Caladiums*. It grows to a height of eight to ten feet, with immense palmate foliage of bronze-green overlaid with coppery lustre. For back rows it is unsurpassed. It is easily grown from seed.

No garden can afford to be without *Dahlias*. They are magnificent as to color, profuse as to bloom, and especially valuable because of their habit of late flowering. To grow them well, give them a very rich soil and plenty of water. It is not necessary, as many suppose, to start them early. The secret of success with them consists in giving them a good start at planting-time and keeping them going steadily ahead. Last season I planted my *Dahlias* the last of May, and had flowers from them in July. But I made the soil in which I planted them so rich that they could not stop growing had they been inclined to. It will be necessary to provide stout stakes for the support of these plants, as their stalks are brittle and easily broken.

The *Gladiolus* is another flower which ought to be in every garden. It is of the easiest possible culture. Give it a rich and mellow soil,

plant it four or five inches below the surface, about the tenth of May, and keep weeds from crowding it, and it will ask for no more attention from you. Its range of colors is wonderful. A bed of it will make your garden magnificent. It combines the rich coloring of the Orchid with the delicacy in tone and texture of the Lily. Unlike many brilliantly colored flowers, it is never coarse. It is most effective when planted in groups of from twelve to twenty. The long, slender flower-stalks will need some support to prevent their being broken down by sudden winds. I would not advise staking and tying them, as that always results in a stiff, formal effect far from pleasing. I make use of a large barrel-hoop, across which I stretch coarse twine, such as is used for tying up wool or on harvesting machines, in such a manner as to secure a large number of meshes. I use this twine because it presents a larger surface to the stalks than small twine, thus doing away with the danger of cutting into the tender growth. I support the hoop on three stakes, having it about eighteen inches from the ground. It will be necessary to assist the stalks in finding their way through the



GLADIOLUS

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meshes. If painted a dark green, this support will not be unpleasantly obtrusive.

And every garden ought to include a bed of Tea Roses. Say what they may about the beauty of other flowers, there is not one of them that rivals the Rose, and no other plant that we can grow will afford us the satisfaction that this will. Small plants of the ever-blooming varieties—this includes the Teas, the Bengal, and the Noisette sections—will come into bloom by midsummer and continue to give us flowers until cold weather if given proper treatment. This consists in planting them in a very rich soil—for the Rose is fond of hearty food and a good deal of it—and a system of cutting-back after each crop of flowers that new branches may be sent out, on which flowers will be borne. This is important, because the flowers are only produced on the new growth, and any method of culture which fails to provide such growth will prove unsatisfactory. By making and keeping the soil rich we encourage the plants to constant effort in the way of growth, and our reward comes in the shape of large, richly colored, and delightfully fragrant flowers, any one of which is worth a score of ordinary blossoms. Young plants

cost but little. By all means invest in a dozen or two of these **Roses**.

Nothing was said about **Pansies** in the lists given because, being perennials, they do not belong there. But most persons consider them as annuals and treat them accordingly, and by so doing they fail to secure from them the pleasure which these most beautiful flowers can give when properly grown. If we sow seed of them in spring, our plants will just begin to show bloom by the time the hot, dry weather of midsummer is upon us, and that will put an end to the display. We will have to wait until cooler weather comes for flowers. The only way to obtain early flowers from the **Pansy** is by depending on old plants brought over the winter in the garden, or young plants procured from the florist, who grows them during the winter for spring use. This last is the most satisfactory method, as young plants are strong and vigorous, and ready to begin flowering when procured. Of course, we all want **Pansies**, and a good many of them.

The **Sweet Pea** is a peculiar plant in some respects, and requires treatment quite unlike that given other plants if we would have it do its best. It must be planted very early—as

NASSED EFFECT OF PANSIES



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soon, in fact, as the ground can be dug up to receive the seed. This because it is a plant that does better in cool weather than in heat, and the conditions which prevail in spring are precisely those best suited to it in getting a start. If it form strong roots before the hot weather is upon us, and these roots are deep in the soil, where they will remain moist and cool, we may expect fine flowers, and a great many of them, but if we give it a shallow planting, which brings its roots near the surface, and a late one, which obliges it to get its start in weather not to its liking, we need not wonder if it disappoint us. The plan I follow with it is this: In April I dig V-shaped trenches about six inches deep. I sow the seed in the bottom of these about an inch apart. I cover it with about an inch of soil, which I press down firmly. When the plants have grown to a height of three inches I fill in about them with some of the soil thrown out from the trench. I continue to do this at intervals as the vines reach up until the trench is filled. In this way I succeed in getting the roots of the plants deep in cool, moist soil. The best trellis for them is one made by fastening coarse-meshed wire netting to posts. It should be at least six feet

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wide, as the Sweet Pea makes a rampant growth under favorable circumstances. In order to assure a bountiful crop of flowers throughout the season it is absolutely necessary to prevent the formation of seed. Go over the vines daily and remove every flower past its prime. If this advice is followed, we can have fine flowers, and plenty of them, from June to November.

If the season should happen to be a dry one, grass-clippings from the lawn can be used to advantage about many plants as a mulch. Tea Roses will be benefited greatly by covering the soil about them with three or four inches of it, as it will prevent too-rapid evaporation of moisture from the soil and assist materially in keeping the heat of the intensely hot sunshine of midsummer noonday from injuring the roots near the surface.

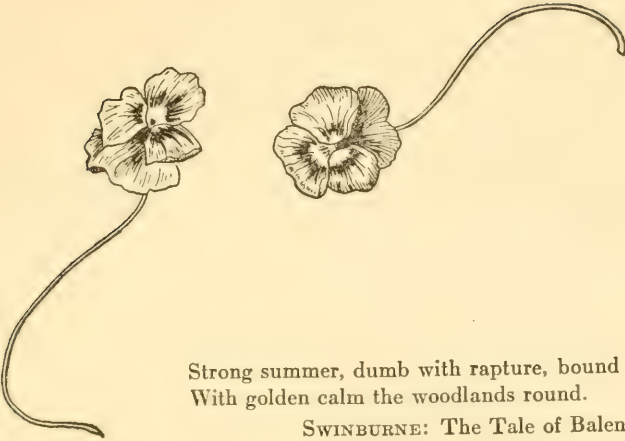
What has been said about the prevention of the development of seed on the Sweet Pea applies with equal pertinence to most annuals. Let seed form, and you will get but few flowers from them after that. All the energies of the plant will be devoted to the effort of perpetuating itself. But interfere with the production and development of seed, and the plant

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will at once make another attempt to do what Nature urges it to, and the first step in this process is the production of flowers. By thus continuously interfering with the natural operations of the plant we keep it flowering throughout the season in its vain attempt to overcome our opposition.



THE GARDEN IN SUMMER



Strong summer, dumb with rapture, bound
With golden calm the woodlands round.

SWINBURNE: The Tale of Balen.



O rose ! the sweetest blossom,
Of spring the fairest flower,
O rose ! the joy of heaven.
The god of love, with roses
His yellow locks adorning,
Dances with the hours and graces.

J. G. PERCIVAL: Anacreontic.

the foxglove bloom
That rings a chime it never tells,
Round which the bees in concert boom
And rumble in its bells.

NORMAN GALE: A Maid's Holiday.

THE GARDEN IN SUMMER



THE coming of summer brings some relief to the gardener who has been busy with making beds, sowing seeds, and pulling weeds through the earlier part of the season. But there will still be much to be done in the garden. Indeed, there will always be work there for the gardener who is thoroughly in love with flowers and their cultivation. But one of the delightful things about gardening is that it pays the gardener as he goes along, and the satisfaction afforded by doing something to make it easier for the plants to do their work well makes even hard work pleasant to the person who grows flowers because he loves them. Such a person will always be on the lookout for something to do in the garden, and he will not fail to find it.

Have you given the Dahlias proper support? If not, see to it at once that they are well staked and tied up, for their stalks are

extremely brittle, and a sudden strong wind—a heavy shower, even—may break them down. Set a stout stake by each plant and tie the main stalk to it firmly. Use strips of soft cloth for this purpose in preference to strings. I have frequently had Dahlia-stalks half cut off in windy seasons by the strings with which I fastened them to their stakes. It is a good plan to paint the stakes a dull green, that they may not show among the foliage.

If the season happens to be a dry one, be sure to water your Dahlias well. A pailful of water, daily, is not too much for each plant. Pour it about the main stalk to make sure of its getting just where it will do the most good. If simply poured over the soil about the plant, a good deal of it will be wasted. If the soil is not rich, apply some reliable fertilizer at mid-summer. The Dahlia is a gross feeder, and must be liberally supplied with nutriment if you want it to do itself justice.

The Gladiolus is another plant that must be given support. Its flower-stalks are tall and slender, and very top-heavy when in bloom. They are easily beaten down by wind and rain-storms, and, if once prostrated, they seldom straighten up again. This misfortune can

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only be avoided by furnishing each plant with a support. Neat little wooden stakes, painted green, can be bought very cheaply at the florist's. If these stakes are housed in winter, they will last several seasons. One stake in the centre of a group of *Gladiolus* stalks will be sufficient to support all of them if they are tied lightly to it. Danger consists in the stalk's breaking at its junction with the root, and whatever prevents it from falling in such a manner as to cause disruption there is amply sufficient in the way of support, as the stalk itself is tough and elastic, and is seldom broken by severe winds.

Tea Roses like to have their roots damp and cool. It is an excellent plan to keep them well mulched with grass-clippings from the lawn. When the clippings begin to decay, dig them into the soil and apply more. Let them be two or three inches in depth, and so spread out that the ground is entirely covered by them. The soil in which these Roses are planted ought to be very rich. Old, decomposed cow-manure is the ideal fertilizer for this plant. After all the buds on a branch have developed into flowers, cut it back sharply. Leave but one or two "eyes" on it. These, if the soil is sufficiently

rich, will soon develop into branches, on which from three to half a dozen flowers will be borne. By keeping up the cutting-back process throughout the season it is an easy matter to make the plant renew itself repeatedly—provided the soil is well supplied with nutriment. This is the secret of the successful culture of this class of roses. By proper management, they can be kept in bloom from June to November.

Sweet Peas are inclined to bloom profusely in early summer, but thereafter there will be a falling-off in the quantity of their flowers unless they are prevented from developing seed. In order to keep them blooming throughout the season, go over the vines daily and cut away every seed-vessel that has begun to form. The plants, thwarted in their efforts to perpetuate themselves by the production of seed, will at once set about the work of reproduction, and as the first stage in this process is the production of flowers, it naturally follows that by preventing them from following out the instinct we can keep them blooming throughout the greater part of the season. This applies to nearly all garden flowers.

I would not allow Pansies to bloom in mid-

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summer. They are seldom satisfactory at this season, because the hot weather exhausts them. Cut away all the old branches, leaving nothing of the plant but the crown. It will remain practically dormant until cool, fall weather sets in. Then dig about it and apply fertilizer, and in a short time it will send out branches on which flowers as large and fine as those of spring will be produced until the coming of cold weather.

Chrysanthemums which have been put into the ground to grow throughout the summer will need considerable attention. They should be staked and securely tied to prevent their being broken down as soon as they have formed heavy tops. They should be pinched back from time to time to secure a bushy, compact growth of branches. They should be fertilized well in order to secure vigorous development. They must be watered well if the season is a dry one, for it is impossible to properly develop this plant in soil that is not kept moist. Allow it to get *really dry* at its roots and your plant receives a check from which it is not likely to recover during the entire season. Insects must be watched for. The black beetle is this plant's worst enemy. As soon as one is seen,

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prepare an infusion of the Ivory soap of household use by melting half a ten-cent cake of it and adding it to a ten-quart pail of water. Spray the plants thoroughly with this decoction, being sure that it gets to the *underside* of all the foliage.

Asters are frequently attacked by a black aphid which does most destructive work in an incredibly short time. You must be constantly on the lookout for the pest. As soon as one is seen spray the plant with clear water, and then powder it thickly with tobacco-dust. If this insecticide is applied promptly and liberally, one application is generally sufficient. But there must be no delay—no half-way work about it. Let the insect alone and he will speedily put an end to your plants.



IF there is transplanting to be done, attend to it, if possible, on lowery or rainy days. Before lifting your plants, water them well. This will harden the soil about their roots and enable you to remove them without much disturbance of the plant. Always shade them for a few days after transplanting. I do this by making a cone of thick paper about a foot

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across at its widest part. I run a stout wire out and in through the lap in the paper. This holds the cone in shape. The lower end of the wire is inserted in the earth, on the sunward side of the plant. The covering thus formed and supported affords all the shade that is needed without interfering with a free circulation of air. At night the cones are removed, that the plant may get the benefit of the dew.

If the season is dry and the weather hot, artificial watering must be resorted to in order to secure a proper development of nearly all the flowers grown in the average garden. But do not begin it unless you can, or will, continue it as long as it is needed. Better let your plants take the chances of pulling through the dry spell unaided than to begin to give assistance of this kind and then discontinue it. In applying water, do it after sundown, as evaporation will take place slowly then and your plants will get the fullest amount of benefit from it. Use a watering-pot with a long spout, without a spray-nozzle. This will enable you to get the water just where it is needed most—at the roots at the centre of the plant. If you use a spray-nozzle, the water will be so sprinkled over a large surface of ground that

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it does very little good. There must be enough to penetrate the soil to a depth sufficient to reach the feeding roots.

Most young gardeners labor under the impression that stirring the soil in a time of drouth is not the proper thing to do. But it is *the very thing* that needs doing. Leave the soil unstirred, and it soon crusts over in such a manner that moisture from dews and ordinary rains cannot penetrate it. But stir it enough to make its surface light, and keep it in that condition, and it takes on a porosity which enables it to absorb whatever moisture there is, precisely as a sponge does.

While most of the work of pulling weeds ends with June, it will be necessary to continue the warfare against them, to a greater or less extent, throughout the season. Weeds are aggressive and determined, and they never give up their efforts to secure a foothold in the garden. You may congratulate yourself to-day that the last of them has been uprooted, but to-morrow you will discover others growing in nooks and corners where they had hoped to escape detection. Allow a few of them to grow undisturbed for a week or a fortnight, and they will develop seed enough to fill your

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whole garden. Make it a rule to look for weeds every time you inspect it, and as soon as you have found one to pull it up. Bear in mind that every weed prevented from ripening seed saves a good deal of work next season.



EVERY amateur gardener ought to invest something in tools which will facilitate and make as easy as possible the work in hand. One of these is a double-bladed hoe. One end of the blade is wide, like the ordinary hoe, except that it is cut into teeth like those of a large saw. The other end is pointed, the socket for the handle being in the middle of the blade. With the wide-toothed end weeds can be cut down rapidly and easily in spaces where there is plenty of room to give it full swing. When you are at work close to plants, reverse it and use the pointed end. You will be surprised to find how close you can work without injuring the seedlings in the row. In fact, with a little practice, you can pick weeds away from flowering plants, with this sharp point, almost as effectively as with the fingers. Give one of these hoes a trial, and you will not care to use any other kind.

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Another useful little tool is a weeding-hook, or claw. It has fine, curved fingers which take hold of weeds and uproot them as you draw it through the soil. These fingers also stir the soil to the depth of an inch or more if you apply a little extra force to the tool, thus answering the double purpose of weeding and pulverizing at one operation. With such a weeder you can accomplish more in an hour than you can in half a day when you pull weeds by hand.

A sprayer is needed in every garden. Not the small hand-sprayer made of tin, but a small force-pump to which a hose is attached, having a nozzle which enables you to graduate the stream of water to any desired degree of fineness. This pump is portable, is made of brass, and will last for a lifetime if properly cared for. Water can be thrown twenty or thirty feet with it in a solid stream. A turn of the nozzle-regulator will instantly change the stream to a fine spray. The value of this pump is most fully realized when insecticides are used, but its usefulness is by no means confined to gardening operations. Use it on the house-plants on the veranda daily and they will never be troubled by red spider or disfigured

IN SUMMER

by the dust which fills the atmosphere in hot, dry weather, and settles over everything out-of-doors.

Every garden should have its wheelbarrow, and a spade whose blade should be kept sharp and clean. After using it, be particular to remove all soil that adheres to it, and once a week go over it with a coat of oil. This will prevent rust and have a tendency to keep it in good working condition. When it is not in use, put it under cover. There should be a place for all garden utensils where they can be stored and properly sheltered. If you make it a rule to put them there, when you have finished using them, you will know where to find them when they are needed, thus saving yourself much annoyance, as well as loss of time, for a tool left where you used it last is seldom to be found when wanted.



I AM often asked about the summer care of bulbs. Should they be left in the ground or should they be taken up and replanted later in the season? I do not disturb my bulbs as long as they bloom well. If they fail to do this, I lift them as soon as they have ripened their

THE GARDEN

foliage and store them away in a cool, dark place until September, wrapped in paper, and packed in boxes of buckwheat bran or dry sawdust. Wrapping in paper is necessary to prevent evaporation. When I take them up, I throw away all weak or diseased ones. The beds in which they are to be planted in fall should be prepared by spading up the soil to the depth of a foot and a half, manuring it well, and working it over until very fine and mellow. Get the bulbs into the ground by the middle of September, in order to give them an opportunity to fully establish themselves before cold weather comes. If I do not consider it necessary to transplant, I manure the bed well and grow annuals in it. These will not interfere with the bulbs below.



A GREAT many persons make a practice of turning their house-plants out of their pots at the beginning of summer and planting them in the beds. They do this, they tell me, for two reasons: it gives the plants a chance to make strong, healthy growth, and it does away with the care they must receive if kept in pots. That plants in the garden-beds grow more



THE FLOWER-LOVER'S PARADISE.

IN SUMMER

vigorously than in pots I admit, but when fall comes and they have to be lifted and repotted their roots have to be cut away to such an extent that the plants receive a check from which they will be months in recovering. Any disturbance of a plant's roots injures it seriously, and the removal of it from ground to pot at the approach of cold weather interferes with it at a most critical period. A little thought will convince anyone that all the growth of the season must be sacrificed in getting the plant ready for the house, so nothing has been gained by planting it out. Really, much has been lost, for it comes to its winter's work in a weakened condition which makes it impossible for it to hold its own with plants kept in pots throughout the entire season. The roots of such plants do not have to be disturbed in fall, consequently they receive no such check as must, of necessity, come to the plant that is taken from the ground and crowded into a pot not large enough to accommodate a quarter of the roots it has made during the summer. It is true that plants grown in this way take care of themselves through the summer, but I take it that the person who really *loves* flowers will be willing to give them all the care they need if

kept in pots when they realize that it is to their advantage to so keep them. A plant in a pot is always under control. You can encourage it to grow, if growth is desirable, or you can keep it practically dormant until the time comes when you desire it to develop.

Nor do I believe in sinking them in the ground in their pots, as many do, arguing that in this way they avoid the dangers which attend the potting of plants from the open ground. A plant in a pot, sunk in the ground, is almost sure to suffer, and seriously, because its owner labors under the belief that it gets all the moisture it needs. She infers this because the ground outside the pot seems moist. But the fact is, the pot, while porous to a certain extent, is not sufficiently so to admit moisture from the soil about it freely enough to meet the requirements of the roots enclosed by it, and because of this the plant suffers, nine times out of ten, and completes the summer season in a condition that is anything but favorable to good work later on. This can be prevented by applying water regularly, but in no other way. And the regular use of water on sunken plants is quite sure to be neglected, therefore the probabilities are that the plants we attempt to summer on

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this plan will be inferior in every respect in fall to those kept in pots on the veranda.



BEDS of plants of ornamental foliage, like the *Coleus*, *Alternanthera*, *Achyranthes*, *Pyrethrum*, and *Centaurea*, will require constant and careful attention if you would have them afford entire satisfaction. If planted in rows or patterns, they must be clipped two or three times a week to prevent the several colors used from reaching out beyond the limits assigned them and blending with other colors, thus destroying that distinctness of outline upon which much of the beauty of a bed of foliage plants depends. This clipping can be done easily, however, by running the pruning-shears along the row, or about the edges of the pattern, cutting away whatever branches have straggled across the line. Dying leaves must be removed promptly, for neatness is all-important in this phase of gardening.

Marguerite Carnations are worthless as summer bloomers. They seldom perfect a flower before the last of September. But they are among the best of our late-flowering plants, and no garden ought to be without them.

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While their blossoms are not quite as large as those of the greenhouse varieties, they are quite as fragrant, and a large percentage of them are as double and as fine of form. In order to secure compact plants with many blossom stalks, nip out the first shoots that show a tendency to reach up and force the plant to "stool out," after the fashion of lawn grass. Such a plant by the latter part of September will be a mass of foliage out of which many flower-stalks will thrust themselves during the cool weather of autumn, each one bearing several buds. Generally, this Carnation will be in its prime at the coming of cold weather. I have lifted large plants of it every fall for several seasons past and potted them, and they have flowered in the greenhouse throughout the entire winter. In lifting these plants care should be taken to disturb their roots as little as possible. My plan is to water them so thoroughly the day before potting them that the soil will have no tendency to crumble. I cut down about them, on three sides, with a sharp spade, having the block of earth enclosed by these cuts about the size of the pot it is to go into. Then I insert the spade on the fourth side quite deeply and bear

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down on its handle slowly and carefully. This lifts the mass of earth containing the plant in such a manner that it seldom breaks apart, consequently the roots are not disturbed in the least. Trim off the edges of the block to fit your pot, drop the plant into it, crowd it down firmly, and the work is done. Set the plants in a shaded place for a few days before removing them to the house. Shower them daily, but do not apply water to their roots until the surface of the soil looks dry. When you take them indoors, put them in a cool room if possible. If they are kept in very warm rooms, their growth is slender and weak. They will not be injured by weather that has a frosty edge to it. Frequent showering will keep down red spider, and the application of Ivory-soap infusion will destroy aphides if they attack the plants, as they are likely to, indoors.



NOW is the time to start many plants for winter use. Get them well under way before cool weather comes if you want them to give satisfaction in winter. Geraniums, Abutilons, Begonias, Heliotropes, Salvias, and

other plants of similar nature are easily grown from cuttings. The *surest* way to root them is to insert them in shallow boxes of clear, coarse sand, which should be kept warm and moist. In a week or ten days most of these cuttings will throw out roots. When new leaves appear, you will know that roots have been formed. Let a second set of leaves appear before you remove them from the sand-box. Then pot them off into moderately rich soil, using small pots at first and shifting to larger-sized ones when the old ones are filled with roots.

Many of our garden annuals make excellent flowering plants for the living-room in winter. Go over the Petunia bed, and when you find a particularly pleasing variety pot it. Cut away all the old top at potting-time. As soon as the roots have taken hold on the new soil you put them into, branches will be sent out from the crown of the plant. Nip these back until you have a dozen or more of them—enough to make the plant bushy and compact. Such a plant will begin to bloom as soon as taken into the house in fall, and continue to do so throughout the entire season if the old branches are cut back from time to time to induce the produc-

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tion of new ones. *Ageratum* blooms beautifully in the house and will afford great pleasure because of its rare, delightful color. *Salvia splendens*—the intensely scarlet variety—is a far better winter bloomer than many of the rare plants sold by florists.

Speaking of the *Petunia* as a house plant reminds me that I wanted to tell my readers how I treat my *Petunias* in the garden beds. Those who have grown them know that along towards the latter part of summer the plants look rather the worse for wear. They have exhausted themselves by profuse flowering. When I see this, I go over the bed and cut away all the old growth. Not a stalk is left. Then I scatter fertilizer over the bed and wait for results. In a short time a vigorous growth of strong, new branches takes place, on which flowers quite as large and fine as those of early summer will be borne in wonderful profusion. In this way I force my plants to renew themselves. They will be in their glory when heavy frosts come. Light frosts will not harm them.

Now is the time to get baskets of hanging plants under way. Do not wait, as so many do, until late in the season before attending to this work. A basket of vines will not be at its

best for at least six months, therefore we cannot afford to put off the preparation of it if we would have enjoyable specimens in midwinter, when they will be most appreciated. The commoner plants, like Moneywort, *Lysimachia*, *Othonna*, *Tradescantia*, and *Saxifraga*, will afford more satisfaction than the "novelties" which florists offer for sale at fancy prices. Do not depend on single plants in the making up of baskets, but make use of at least half a dozen plants in each. All the sorts I have named will grow from cuttings, which need not go into the sand-box, but can be inserted in the soil with which the basket is filled.

Right here I want to tell the lover of hanging plants how I keep mine supplied with water. Plants suspended from the ceiling are not easy to get at, and are frequently neglected or forgotten for days at a time. As a result, they are generally sorry-looking specimens. I take a tin can holding a pint or more. I make a hole in the bottom of it, just large enough to let water dribble through slowly. This I fill with water, and place on the soil in the centre of the basket. Generally there will be foliage enough to conceal it. If there is not, it can be



A FLOURISHING HANGING-BASKET

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made inconspicuous by painting it a dull green. The slow, steady outflow of water will keep the soil evenly moist if the hole in the can is of the right size. This must be determined by experiment. It is an easy matter to fill the can every day, or oftener if necessary, and put it in place, but it is *not* an easy matter to mount a chair or the step-ladder and apply water in the old way.



THE FLOWERS OF FALL



Thou blossom! bright with autumn dew,
And colour'd with the heaven's own blue,
That openest when the quiet light
Succeeds the keen and frosty night.

BRYANT: To the Fringed Gentian.



Along the river's summer walk,
The withered tufts of asters nod;
And trembles on the arid stalk
The hoar plume of the golden-rod.
And on a ground of sombre fir,
And azure-studded juniper,
The silver birch its buds of purple shows,
And scarlet berries tell where bloomed the sweet
wild-rose!

WHITTIER: The Last Walk in Autumn.

THE FLOWERS OF FALL :: :: :: ::



THE flowers of fall have a charm peculiarly their own and quite unlike that which invests those of the spring and summer. They are not less beautiful, but there is about them a sedateness, an air of repose, befitting the season, as if they realized that the end of things, for them, is near at hand, that the time had come to give up the ambitions of the months when there is a long prospect ahead of growth and development. The feeling is akin to the sense of rest and peace which characterizes human life in its sere and yellow leaf, with the consciousness of work well done and repose well earned. I do not know that I can better describe the impression which always comes to me at this time than in this little sonnet, written some years ago, after a tramp across the fields and over the hills on an October day, which was in itself a perfect poem:

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Come, walk with me along the forest ways
This autumn day. What peace is in the air!
The world we look upon is wondrous fair.
The far-off hills are dim in purple haze,
And in the woods near by the maples' blaze
Is like a ruddy bonfire. Here and there
The golden-rod lifts up its torch in air,
And scarlet woodbine lights the woodland ways.
The birds sit silent by their empty nest;
The air is drowsy with a spell of dreams,
And as the leaves fall slowly, one by one,
We look away into a golden west,
And while the year's pale twilight round her gleams,
Earth sits with folded hands, her work all done.

Perhaps the most noticeable flower of fall is the Golden-rod, because of its brilliancy and the fact that it grows nearly everywhere. It is the true cosmopolite among the flowers of the western continent. It is "at home" wherever its roots find an opportunity to strike into the soil, and if the opportunity is not freely offered it makes one for itself. It is in no wise sensitive at the cold reception of its friendly advances. On the bleak hills of New England, along roadsides, and in pasture-lands it lights its flaming torches with an air in which cheerfulness and bravery are mingled in a sort of defiance, as if it realized that it must fight for existence and had brought to the task an optimistic courage and a sturdy

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determination to assert its rights. Farther west the plant takes on a different character, and has something of the happy-go-lucky air which is peculiar to our Western life. While the Golden-rod of New England seems for the most part to be a plant of wiry stalks and rugged rather than robust growth, that of the West grows to the height of a man's head and has a rank luxuriance which makes it seem quite unlike its New England relative. While there is more of it in size there is really less of it in beauty, in my way of looking at things. The New England Golden-rod has quality, which the Western Golden-rod strives to offset by quantity, and on this account the latter is less a favorite with the artist and the flower-lover than that of the East.

The Golden-rod is a plant which when it is domesticated loses much of the charm with which it is associated in its native haunts. It will grow readily in the garden—too readily, indeed; for give it a place there, in rich soil, and it will speedily become as domineering and aggressive as the English sparrow, which it reminds me of in many ways. It will take entire possession of the place, crowding out every plant it comes in contact with, and its prosper-

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ity seems to develop in it an arrogance which will not long be tolerated. The result of most attempts to make it a garden flower which have come under my observation is that it is soon banished from the society it has undertaken to rule in too lordly a fashion. Like many persons we have all known, it cannot stand prosperity. It is well, perhaps, that it is not adapted to garden culture, for too great familiarity might breed a sort of contempt for it. It would entirely lose the charm of wild, vagrant freedom which always clings about it when it grows in the garden of Nature's planting.

The Golden-rod has been a much-abused plant of late. Some very scientific persons have suddenly discovered that it is the cause of hay-fever, and I have been requested—in some instances ordered—to cease saying friendly things about it. If I continued to speak of it as a plant to be tolerated, to say nothing of its being enjoyed, I would be set down as a deliberate conspirator against the health of my fellow-men. Now there happens to be unlimited quantities of the plant growing all about the locality in which I reside, acres and acres of it, all along the lowlands near

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the river, while the pastures and hill-sides are brilliant with the bonfires which it kindles on every hand. It is certainly reasonable to suppose that some of us who live where it flourishes ought to have hay-fever if this disagreeable disease is so produced. But the fact is, we do not have it. The only cases of hay-fever ever known in the eastern part of Wisconsin are those which come from the city. By coming into the haunts of the plant, they at once find relief, and, moreover, if the sufferer comes early enough in the season he may escape it altogether. Another charge not long ago made against the Golden-rod was that horses were killed by eating it. This claim is quite as absurd as the other, for horses and cattle are pastured where it grows year after year, and we have never heard of one case of injury from it. So far as I have been able to observe, they never touch it.



THE Aster is far less brilliant than the Golden-rod, but it has about it a dreamy, hazy kind of beauty which makes it a universal favorite with those who are fond of quiet colors. There are many varieties of the Aster

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growing among the Golden-rod, some with flowers of rosy violet, large as those of the Daisy, and produced in such profusion as to entirely cover the plant, some with flowers of the palest, softest blue, with a heart of gold, and others which seem a reflection of the skies of Indian-Summer time. The earlier sorts, which begin to bloom in July, are almost white, and so unlike the later flowers in most respects that we hardly think of them as Asters. The late Aster is a most charming flower, and when found in close proximity to the Golden-rod, as it almost always is, it intensifies the brilliant colors of that flower by strong contrast. There is a sort of *camaraderie* between the two which is suggestive of steadfast, old-time friendship, and I often think of them as two old floral tramps which have weathered many a storm together, and whom it would be unkind to separate. Apart, they would pine for the old companionship, and life would not be what it was before they came to the parting of the ways. Let them live and get all the good they can out of life together. Some varieties of Aster, especially that catalogued by Gray as *Nova Anglæ*, are easily domesticated. Under cultivation they become most attractive late-

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flowering plants for the garden. I have two plants about five years old, which were sent me from a New England hill-side, and each year they send up a dozen or more stalks to a height of six or eight feet. These branch freely, and they are completely covered with rosy-purple flowers from October to the coming of winter. Few plants in the garden attract more attention, and most persons fail to recognize them, so much larger are they in every way than the Aster of the field and pasture. They increase in size each year, but do not spread like the Golden-rod when admitted to the border. But the most delightful Aster of all is the variety *Chapmanii*, whose flowers seem fashioned from fringy fragments of the hazy November skies. It is a flower which dreams are born of, a flower that sets one thinking of the "days that are no more," and seems as much a part of autumn as the plaintive cry of the quail in the russet stubble-field or the haze that wraps itself about the hills and fills the valleys with that sense of vagueness and unreality which belongs to no season so much as to late autumn.

In many portions of the West the lowlands and swamps which have been burned over are literally ablaze during September and Oc-

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tober with the yellow splendor of a variety of *Coreopsis*, whose flowers are so closely clustered along the slender, wide-spreading branches that there seems room for no more. I know of no flower of a richer, more intense color. It is like concentrated sunshine. It always sets me thinking of the old legends of the "Field of the Cloth of Gold." An old swamp grown up to this flower is a gorgeous sight to see when it is in full bloom. Stretching away over acre after acre on which nothing else seems to grow, it lifts its golden disks in a radiant air whose brightness seems diffused from it, and the eye is dazzled by it as by looking at the sun.



IF, during September and often later, one takes a stroll along the low banks of a creek or river, or into swampy places where the soil is of an alluvial or vegetable character, he is sure, in many localities at the North, and very likely at the South also, to come upon dense growths of *Celandine*, not infrequently standing waist-high in shady places, and looking fragile as frostwork almost with its half-transparent

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stalks and delicate foliage. The blossoms of the plant are dainty little things, some a clear, pale yellow, some spotted and splashed most fantastically with brown. The name of Jewel-weed, by which the plant is known in many localities, is strikingly appropriate, as the pendant flowers have a sort of moonstone appearance as they swing from their slender stems along the many branches. Children are always delighted to find this plant because of its explosive seed-pods. Touch them ever so lightly, and they burst. Because of this habit it is known by the name of Touch-me-not by the children, and they never tire of causing the seed-vessels to burst and scatter far and wide the little green seeds hidden away within.

In low, moist places we often find the Eupatorium, better known as Boneset, growing in great masses, as if someone had set about cultivating it in beds of irregular shape. It is not a showy flower, but is always noticeable because of its lanceolate leaves uniting at the base about the stem and its stately habit of growth. Its white petals soon take on a dinginess that detracts greatly from the charm of its feathery clusters as seen in the early part of the season, but most country-bred people are glad to meet

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with it, probably because they have grateful memories of the supposed relief an infusion of "thoroughwort" afforded them in their childish ailments. We forget the bitterness of the nauseating draught, and generally gather an armful of it, bringing it home to add to the row of herbs that hang along the attic rafters. To it we also add great bundles of White Snakehead, whose flowers used to send a delightful tingle of fear through us as we looked into their open mouths, easily imagined the jaws of a veritable snake, for the resemblance of the peculiar blossom to the head of a serpent is very striking. There is a rose-colored variety which is quite rare, seldom found growing away from moist, marshy places. The flowers of both varieties are nearly sessile, in spikes or clusters, each blossom set in a concave bract. Bitter as is the decoction of Thoroughwort, that of Snakehead is far more so, leaving its tang in the mouth for hours. I never shall forget how suddenly we children used to recover from our indispositions when we saw the basin of Snakehead put to steep upon the kitchen stove. They used to give it to us to "make an appetite" and to "tone us up" in spring, and for "biliousness" and to correct

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various other morbid conditions of the system, and to this day whenever I come across the plant I can hardly resist the impulse to gather it,—probably with a vague, hardly comprehended desire to inflict a dose of it upon someone as a means of getting even with the past.



I HAVE very vivid recollections of how we used to hunt for Gentians in early fall, and how delighted we were when we found them. The fringed gentian is one of the loveliest of all blue flowers, and it is a source of regret to all flower-lovers that it is not more plentiful. The closed gentian has always seemed an imperfect flower to me,—a flower checked in its development before it had reached the stage of opening its blue-and-white petals. The Gentian is almost always found in low, damp soils, generally along the banks of a stream where there is a good deal of shade. I know of but few places where it can be found at present; it seems to be retreating, like the red man. But once in a while, of late years, I have come upon little colonies of it as if it had called a temporary halt in its retreat. I have not found a fringed Gentian in a long time.

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In old meadows which have been neglected until, in country parlance, they have become "run out," we find dazzling exhibitions of several varieties of *Rudbeckia*. The farmer looks upon this as a pest, and sees no more beauty in it than in the summer daisy, but we of a different stand-point cannot help admiring the brilliant blossoms, more especially those of the cone-flower type with tall brown centres. Recently a new sort of *Rudbeckia* has been introduced into our gardens under the fanciful name of "Golden Glow." It bears very little resemblance to the ordinary *Rudbeckia*. Its flowers are large and double, and so like those of the popular decorative *Dahlia* that they are often mistaken for them. The cone has been cultivated out of them entirely, if they ever had one. They are magnificent autumn bloomers, furnishing hundreds of flowers of the richest golden yellow from each well-established plant. It is so entirely hardy, and of such a sturdy, rambling character, that if it could once get a foothold in the meadows it would soon make itself quite at home.

Along in September one finds great clumps of *Vervain*, with multitudes of small sessile flowers in paniced spikes, both blue and white,

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" blooming by the roadsides, and often, in the fields beyond, the Veronia, or Iron-weed, stands up as stiffly as a grenadier, holding its corymbose cymes of rose-purple flowers well above all other plants in the vicinity. In places where a fire has burned the ground over the Fire-weed will be found. This is a coarse, erect annual, of rank smell when disturbed, with insignificant leaves, and large paniculate-corymbed heads of greenish-white flowers. Where it comes from, no one knows. It may not have been seen for years, but the year following a fire you will find it growing as thickly as if sown by man. It will hold possession until someone begins to cultivate the soil. Then it disappears as suddenly as it came.



WE have at the West and South a *Helenium autumnale*, more generally known as Sneezeweed. It belongs to the great Compositæ family, and might well be classed with the *Helianthus*. It has a row of yellow petals, notched at the end, about a disk of brown. It is a showy little plant in itself, but the chief charm of it to children is its ability to set one sneezing. They gather the flower-heads after

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the petals have faded and rub the centre to a powder. Held to the nose, this so titillates the tissues of the olfactories that a violent fit of sneezing ensues. I well remember how I once braved paternal wrath by taking a pocketful of it to church, and distributing it slyly among as many children as I could communicate with before services began, with the understanding that it was to be scattered under the pews just before the benediction was pronounced. So faithfully were instructions carried out, that before the "amen" was said the entire congregation was sneezing as if a most aggravated form of influenza had suddenly descended upon it, and I was experiencing a delight balanced by a dread of consequences in case my wickedness were discovered—as it was.

In the home garden we have but few flowers that bloom after frost comes. These are the Asters, the hardier Chrysanthemums, the Hydrangea, the Pansy, the perennial Phlox, and the Japan Anemone. These continue to show a brave face to the on-coming Winter until he is actually upon them and has them in his icy clutch. The Dahlia, the Canna, and the Cosmos help to make bright the early fall, but



ANEMONE JAPONICUM

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the first frosty night puts an end to their beauty and often to their life. Often in the garden-ways of late fall we come upon a flower of the summertime grown from an early-ripened seed which the wind has sown. Sometimes these estrays almost startle us, so out of place they seem. They always have a sort of uncanny air to me. Perhaps they are memories of dead things which haunt the heart of the dying year. Who knows?

But even after the snows, which often fall in November, have covered the dead leaves we may find flowers in the woodlands. They are not, however, revealed to a careless seeker who expects to discover them by gleams of brilliant color. It takes sharp eyes to ferret out the Witch-hazel's tiny, fringe-like blooms, which come along after the last leaf has fallen from the branch. But they are there, and their work is done in the dull November that closes the season, as if they had somehow got behind-hand during the day and must finish their labor after the nightfall had closed in.

FALL WORK IN THE GARDEN



What visionary tints the year puts on,
When falling leaves falter through motionless air,
Or numbly cling and shiver to be gone!
How shimmer the low flats and pastures bare,
As with her nectar Hebe Autumn fills
The bowl between me and those distant hills,
And smiles and shakes abroad her misty, tremu-
lous hair!

LOWELL: An Indian Summer Reverie.



The warm sun is failing, the bleak wind is wailing,
The bare boughs are sighing, the pale flowers are dying;
And the year
On the earth her deathbed, in a shroud of leaves dead
Is lying.
Come, months, come away,
From November to May,
In your saddest array;
Follow the bier
Of the dead cold year,
And like dim shadows watch by her sepulchre.

SHELLEY: Autumn, A Dirge.

FALL WORK IN THE GARDEN



THE fact that fall affords ample opportunity for a good deal of work in the garden is not generally recognized by the amateur gardener. He has the impression that very little can be done to advantage at that season, consequently very little—oftener nothing at all—is done. The natural result of this way of thinking is that our gardens suffer in more ways than one from neglect which a little study of the subject would do away with.

The fact is, a great deal of work can be done to better advantage in the fall than in the spring. By giving proper attention we may anticipate, in a considerable degree, much that is generally done in March and April,—and poorly done, in many instances, because of the rush which then comes on. If all that part of garden-work which can be done advantageously in fall is done then, that which is left

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for the spring can be done much more thoroughly than is usually the case because of the absence of the hurry which nearly always characterizes work in the garden when two seasons are crowded into one. Therefore, for the sake of avoiding undue haste and the slovenly work likely to grow out of it, as well as for the garden's sake, aim to do in fall all that can be done then, and do it well. Keep in mind the fact which every wise gardener fully understands the force of, that a garden which receives attention only during the spring season is a garden only half-cared for.



ABOUT the first garden-work to be done in fall is the making and planting of the bulb-bed, to which a late chapter of this book is devoted. I shall therefore merely summarize the points there elaborated.

Bulbs should be planted as early in the fall as possible. September is the best month to do the work in. October answers very well. But I would never encourage anyone to defer it until November, because late-planted bulbs have very little time to make root-growths in. Early-planted ones complete this part of their



BED OF NARCISSUS

THE GARDEN

yearly work before cold weather comes, and they are therefore in fine condition for the work of the season when spring arrives. Hence, plant early.

In making beds for bulbs, spade the ground up well to the depth of at least a foot and make it fine and mellow, working into it a liberal amount of old, well-rotted cow-manure. If not naturally well-drained, provide good artificial drainage, for no bulb will do well if water collects and stands about its roots. Let the beds have a slope from centre to edge, that the water from melting snows and early rains may run off readily. Make your beds as soon as you send off your order for bulbs. Have everything in readiness for them, and when they arrive put them into the ground at once. Bulbs exposed to the air and light part rapidly with their vitality. Plant the larger ones about eight inches apart and from five to six inches deep. Four inches apart and four to five inches deep will answer for the smaller ones. Before cold weather sets in cover the beds with litter or leaves to the depth of a foot.

Right here let me briefly explain the philosophy of a winter covering for plants, as it will enable the reader to understand better the whys

and wherefores of much of the advice given in this article. We do not protect plants in winter with a view to keeping the frost away from them, as many suppose, but to *keep it in* after it has penetrated the ground about the roots of the plants. In other words, we aim to prevent the sun from thawing out the frost.

It is a fact not very well understood as yet by most amateur gardeners that injury to plants in winter results from violent alternations of heat and cold, rather than continued cold. To-night they freeze. To-morrow the sun shines and extracts the frost, and at night they freeze again. The frequent and rapid alternation of these conditions brings about a rupture of cells, which weakens the plant if it does not ruin it. If a comparatively tender plant is frozen and remains in that condition throughout the winter, and the frost is extracted gradually from it in spring, as a general thing no harm will be done. By covering the roots of plants in fall we keep the sunshine from interfering with the frost in the soil, and it remains in control until spring weather operates upon it and overcomes it by such slow degrees that there are no abrupt transitions to do violence to the plant-cells. In this way we

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prevent the soil from heaving under the action of frost and breaking the tender roots of the plants. Some roots, however, are elastic enough to be able to adjust themselves to the strain made upon them, but those of the bulbs are not of this class, and because of their inelasticity they are sure to be greatly injured if not given the protection they need.

Hardy herbaceous and perennial plants can be set out or transplanted to advantage in fall. Old clumps are quite likely to need division and resetting. In order to keep them in vigorous health prune away all weak and diseased roots, and in no way can this be done so effectively as by lifting the entire plant, cutting it apart, and discarding all but the strongest roots. If this is done as soon as the plant ceases to grow and appears to be dormant, the newly-set plant will have time to make considerable root-growth in its new location before cold weather puts an end to work of this kind. Next season it will bloom as if nothing had happened to it, but, of course, it will not give as many flowers as an older plant because there will be fewer flower-stalks; but it will make a strong growth during the season, and the second year will see it at its best. After the third crop of flowers

from transplanting it is well to repeat this treatment. By doing some of it each year you have two sets of plants in hand,—one in its prime and one getting ready to do its most satisfactory work next year.



HOLLYHOCKS and other perennial plants which are grown from seed sown during the summer should be transplanted in fall to the places where they are to bloom. The Hollyhock is very hardy, but it is quite susceptible to injury from excessive moisture. The rains of spring and water from melting snow bring about decay of the thick and spongy foliage, which is quite sure to be communicated to the crown of the plant, and from there it extends to the roots. To prevent this I would advise covering each plant with something that will turn aside water. An inverted flower-pot, an old box, or a pail that has outlived its usefulness in the household will answer for the purpose well. After putting whatever you make use of as a water protector in place, throw litter or leaves about it, as advised for bulbs. This can be removed as soon as the ground thaws in spring, but I

THE BEAUTY OF THE HOLLYHOCK



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would not advise uncovering the plants until the rainy season is over. Leave them covered until the time comes for growth to begin. It is a most excellent plan in growing the Hollyhock to have the ground slope away on all sides from the crown of your plants. This prevents water from settling about or near the plant. No other border plant is so easily injured by excessive moisture, especially if it comes in contact with the foliage.

Shrubs can be transplanted with entire safety immediately after they have completely ripened the growth of the season. This is indicated by the fall of the foliage. In transplanting them disturb the roots as little as possible. Keep all roots which are unavoidably exposed covered with wet sacking or moss while out of the ground. If any are mutilated, cut them off smoothly with a sharp knife. Before lifting any shrub have the place where it is to be planted ready for it, and be sure to have it large enough to allow for a natural disposal of all its roots. After filling in with fine soil about the plant, water well. All transplanted shrubs should be pruned sharply at planting-time; as a general thing, a third of the old wood should be removed. Provide

FALL WORK IN

yourself with a good pruning-knife and see that it is kept sharp enough to make a smooth, clean cut. A dull knife that "haggles" away the wood should never be tolerated.

Pruning can be done to advantage in fall among such shrubs as are not laid down and covered in winter. These latter should be left for spring-pruning. There can be no hard-and-fast rule as to how to prune or how much to prune. The character and habit of the shrub must determine this to a great extent. Some have but few branches. These will require no thinning out, but simply a shortening, which will induce the production of side branches, thus giving a more bushy and compact plant than would be likely if the plant were left to itself. Other shrubs make such a rampant growth that they soon become a thicket. These should be thinned out, leaving the plant open to a free circulation of air. Old and weak wood should always be removed. By yearly attention to this matter we may renew a shrub from season to season and keep it always strong, provided we feed it well. But care must be taken in pruning to discriminate between shrubs which produce flowers in spring from buds formed in fall, like those of

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the Lilac, and those which make growth in spring before blooming. The latter may safely be pruned now, but all belonging to the class of which the Lilac is a representative should not be pruned until after the completion of the flowering period. To prune such shrubs at this season is to destroy next spring's crop of flowers.



ROSES are generally considered hardy plants, except at the extreme North, but the fact is, few varieties are sufficiently hardy to stand the severity of winter north of Philadelphia without protection. They may come through safely for some years in succession. Then a peculiar season happens along and our bushes are almost ruined by it. In order to make sure of wintering them well it is quite necessary to protect them in some way. Some persons gather the stalks together and wrap them in straw from the ground up. This method is not always satisfactory. The best system of protection for the Rose of which I have any knowledge is that of bending the bushes down upon the ground and covering them with soil to the depth of five or six inches.

FALL WORK IN

This plan, however, is adapted only to locations where surface water will run away readily. Stagnant water about rose-branches in spring, before it is safe to uncover them, will always severely injure them. In bending down the bushes, preparatory to covering them, great care should be taken not to break or crack the stiff and somewhat brittle stalks. Make your bends slowly and gently in order to allow the branches to accommodate themselves to the strain put upon them. When you have them flat upon the ground lay a piece of sod upon them to hold them in proper position until you can give them their final covering. Lay them all in the same direction and as close together as possible to economize in covering material. Old and large stalks and the great canes of the Climbing Roses are exceedingly difficult to manage without injuring them. To avoid the risk of breaking them, as the result of too abrupt a bend, I would advise heaping earth against the base of the plant, on the side towards which the stalks are to be bent, and bending the bushes over it carefully and slowly. This substitutes curves for sharp bends and greatly simplifies the work of caring for stubborn plants. If soil is used as covering, let

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it be as light and porous as possible. Leaves are excellent, if one can get enough of them. Lay boards or evergreen branches or wire netting over them to prevent their being blown away. The hardier sorts of hybrid Tea Roses should have their tops cut off close to the ground and be covered with at least a foot of leaves, confined within a pen of boards or an old box.

The Teas and so-called Ever-bloomers—a class comprising the Bengal, Noisette, and Chinese roses—are so tender that they cannot be expected to survive the rigors of a Northern winter unless they are given the very best of protection. Even then they cannot always be depended on. Several methods are employed. Some pack straw snugly about the plants and cover it with four or five inches of earth. Others make little bundles of straw and lay two tiers of them all about the plants at right angles, thus making a sort of house of straw, which is filled in with leaves or litter, with a roof of evergreen branches. Either of these methods, if carefully carried out, will save seventy-five per cent. of the plants. Those who cannot obtain straw can use earth alone, putting leaves, litter, or other

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refuse on top, with wire netting to hold it in place if evergreen boughs are not to be had. If one fears to trust these roses to out-door wintering, they can be lifted late in fall, packed closely together in boxes of soil, and stored in the cellar. There they should be kept cold and dry. In April they can be set out in the garden. Most of them will winter safely in this way, but we do not get such growth from them as from those left in the ground. The tops of these tender Roses should be cut away before covering or lifting. All we care to save is the roots. The ideal covering is snow. I have several times had very tender varieties covered with snow before I had given them any attention whatever. Every one of the plants so covered which *remained* covered until spring came through in excellent condition. If all our Roses could have a snow-drift to winter in, there would be no difficulty about bringing them through in good condition.

Roses should not be uncovered in spring until the weather becomes settled. Too early removal of protection is often followed by cold weather, which injures the plants quite as much as exposure during the winter would. "One swallow doesn't make a summer," neither does

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one bright, warm day assure us that weather which can be trusted has come to stay. Therefore, to be on the safe side, allow your Roses to remain covered until the buds on other shrubs begin to grow. Even then do not remove the covering all at one time, but be several days about it, that the plants may gradually adjust themselves to the new condition of things.



THE early frosts of fall will generally be severe enough to put an end to the flowering of Dahlias and scorch the foliage off the Canna and the Caladium, but it is not advisable to lift the roots of these plants until some weeks later. Let them ripen off in the ground. Along in the latter part of October dig them. Choose a warm, sunny day for this work. Lift each clump of roots carefully, and lay it on boards in the sun, after shaking off as much of the soil as will readily part with it. Do not remove the old stalks at this time. At night cover the roots well with blankets or old carpet. Next day, if the weather is favorable, expose them to the sun, and do this for several days in succession, being careful to cover them each

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night. After a little the earth will all crumble away from them. Then—and not till then—cut off the stalks three or four inches from the roots. Leave them exposed to the ripening effect of late fall sunshine as long as it seems safe to do so. Then store Dahlias, Cannas, and Caladiums in the cellar, putting them on shelves some distance from the floor and spreading them out well. Never heap them together and never put them on or near the floor, where they will gather dampness. Gladiolus roots can be put in paper bags and hung in frost-proof rooms. Some prefer to keep Dahlias and other tuberous roots there, thinking it a safer place for them than the cellar. But I prefer the cellar, unless it is a damp one. In rooms the roots are likely to dry out too much. Never make the mistake of lifting these roots and taking them immediately to the cellar or other place of storage. If this is done, they are almost sure to decay. They should be given ample time to dry out well before being put away for the winter. Bear this in mind, for it is of the utmost importance.

Aquatic plants grown in natural ponds will need no protection, but those grown in cement basins or wooden tanks, as most are at present

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in amateur gardening, will have to be protected against severe freezing. A good plan is to set boards up about the tank or basin containing the plants in such a manner as to leave a space of about a foot between the surface of the water and the covering. Lay boards across these, and then cover with at least a foot of coarse litter, heaping it up well about the sides of the tank. With such a covering the plants will no doubt freeze to some extent, but not sufficiently to injure them. The roots of tender varieties should be packed in moist soil and stored in the cellar, where the temperature can be kept at about fifty degrees.

The amateur gardener often finds it difficult to decide as to the time when winter protection should be given his plants. Sometimes we have pleasant weather until late in fall, and we put off this work from day to day, thinking they would be injured by covering them while warm weather continued. All at once cold weather comes and finds our plants wholly unprepared for it. We at once set about doing the work that ought to have been done before, but whatever is done under unpleasant conditions is likely to be poorly done, and the result of our neglect is quite apparent when spring

FALL WORK IN

comes. We are entirely safe in counting on cold weather by the first of November at the North, and I would advise getting plants ready for winter at that time. It is so late in the season that no harm will be done by it if the weather continues mild. Choose a pleasant day for this work, if possible, and do it leisurely, that it may be well done. It doesn't pay to hurry it, for hurry means half-doing what you undertake.

We have many shrubs which are considered iron-clad in their ability to resist the influences of a severe winter, but I find that it is well worth while to give some protection to even these. A few forkfuls of litter about their roots will be of great benefit to them because the covering, though slight, enables them to save something in vitality, and a saving in the vital force of all plants is what should be aimed at if we would have them do their best.

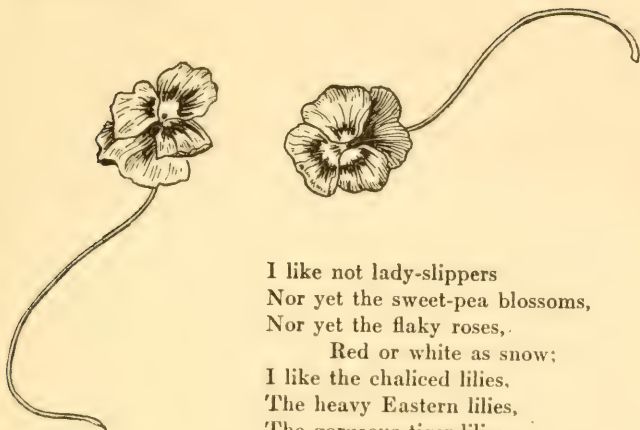


AFTER the work outlined above is done there will still be considerable to do in getting the garden ready for winter. Neatness should characterize it at all times, and in order to have it as attractive as possible during the

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winter everything of an unsightly nature should be cleared away. Go over the border and cut off old flower-stalks close to the roots they sprang from. Never leave this refuse to be blown about by the winter winds, but make a heap of it and burn it. Gather up the stakes and trellises used as supports for plants in summer and store them away in some sheltered place. If this is done each fall, and a coating of paint is given them each spring, they will do good service for several years, but if left exposed to the weather the year round they will seldom outlast a second season. The same is true of all garden appliances. The wise gardener will never leave his rake or hoe hanging on the fence or a tree-limb over winter, and the spade and trowel in the bed where he used them last. There is a great deal of satisfaction in having good tools to work with, and rusty tools are never good ones. With proper attention they can be kept in fine condition until worn out. Go over them with sand-paper when you store them away, and scour them till they shine. Then give each one a wash of oil to protect it against dampness. When the last of these little jobs is done, and not till then, the work of the season can be considered as ended.

THE GROWING OF BULBS



I like not lady-slippers
Nor yet the sweet-pea blossoms,
Nor yet the flaky roses,

Red or white as snow;

I like the chalice lilies,
The heavy Eastern lilies,
The gorgeous tiger-lilies,

That in our garden grow.

T. B. ALDRICH: Tiger-Lilies.



Hail to the King of Bethlehem,
Who weareth in his diadem
The yellow crocus for the gem
Of his authority!

LONGFELLOW: Christus.

Fair daffadills, we weep to see
You haste away so soone ;
As yet the early-rising sun
Has not attained its noone.

* * *

We have short time to stay as you,
We have as short a spring;
As quick a growth to meet decay
As you or anything.

HERRICK: Daffadills.

THE GROWING OF BULBS :: :: ::



NO garden is complete that does not include a collection of hardy bulbs. They give us flowers from a month to six weeks earlier in the season than we can expect them from most herbaceous plants and ordinary shrubs, thus bridging over the long interval between the going of the snow and the coming of the Peonies and the Aquilegias. We have no plants of easier culture, and few plants that cost us less labor. They can be grown in almost any soil, and the beds in which they are grown can be given up to annuals, after their flowering period is over, without disturbing them or injuring them in the least.

In view of these facts, the lover of flowers who has not a collection of bulbs is urged to make one, and it is the purpose of this article to give such information as the amateur needs in doing so.

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All bulbs like a rich, well-drained, mellow soil. They will not do well in heavy soils, and a great deal of moisture about their roots is fatal to them. Therefore in selecting a place for them choose one naturally well drained, if possible. If you are not sure of good, natural drainage, set about providing a means of escape for surplus water by excavating the soil to the depth of at least a foot—eighteen inches would be better—and filling in at the bottom of the excavation with from four to six inches of broken pottery, brick, old cans,—anything, in fact, which will not decay readily and allow the soil above it to settle back into its former hardness, and thus become as retentive of moisture as it was before anything was done with it. Too little attention is given to this part of the work, and the result of the neglect is soon seen in the failure of the bulbs to bloom, and their entire disappearance in a year or two. If you cannot provide good drainage, do not undertake to grow them. Failure is a foregone conclusion if your bulbs have to stand with their roots in mud at the time when active, healthy growth ought to be taking place.

In making a bulb-bed, throw up the soil and let it remain exposed to air and sunshine until



BED OF HYACINTHS AND TULIPS

OF BULBS

it is in a condition to crumble readily under the application of the hoe. Then work it over and over, until it is as fine and mellow as it can possibly be. Do not be satisfied with it as long as a lump as large as a robin's egg can be found in it. The use of the hoe and the iron-toothed rake will soon reduce it to the proper degree of mellowness. After you have pulverized it pretty thoroughly, add a liberal amount of manure to it. This is of great importance, as bulbs require a nutritious soil, and cannot do themselves justice unless it is given them. Old, black, well-rotted manure from the cow-yard is the ideal fertilizer for them. Use it in the proportion of one part manure to three parts soil, and be very sure to see that it is thoroughly incorporated with the earth thrown out of the bed before it is returned to it and it is pronounced ready for the reception of your bulbs. Do not slight any of this work, as success depends upon the thoroughness with which it is done.



MANY persons delay bulb-planting until late in the season, thinking that all it is really necessary to do is to get them into

THE GROWING

the ground before cold weather comes. This is a mistake. Bulbs should be planted in October, while the ground is still warm. Before a bulb can produce blossoms, it must make roots for the support of the new growth of the season. This it will do in fall, if planted early, and in spring it will be ready for the work demanded of it. Late-planted bulbs do not have time to form these roots before the ground freezes, consequently they have double duty to perform when spring comes, and quite naturally they fail to do good work, because too much is required of them at that time. Therefore see to it that your bulbs are planted as early in the fall as possible. Begin to get ready for them as soon as your order goes to the florist, and put them into the ground as soon as they are received.

Bulbs of ordinary size, like the Tulip and the Hyacinth, should be planted from four to five inches deep. The smaller ones, like the Crocus and Snowdrop, need not go down so far, but Lilies require very deep planting. Eight inches below the soil is not too much for them. If nearer the surface, the action of frost in the soil is quite sure to heave them from their places to a greater or less extent, thus breaking

OF BULBS

the roots that were formed after they were planted, and anything that brings about such a disturbance is sure seriously and permanently to injure them. Covering them with litter in November will do much to prevent injury of this kind, but it does not justify shallow planting. It is a good plan to give *all* bulbs a covering of coarse manure, hay, or corn-stalks before cold weather sets in. It will not keep out the frost,—that we cannot expect to do by any system of protection,—but it will prevent the alternation of freezing and thawing which generally takes place. And this change of conditions, often abrupt and violent, is what does to our plants the injury we must aim to avoid. Eight or ten inches of litter from the barn-yard will be found very effective in keeping the sun from thawing out the soil after it is frozen. No harm is done by intense cold as long as it continues without interruption.

It is not within the province of this article to outline any plan of planting, for the amateur gardener will prefer to make or select her own designs. This is one of the pleasures of flower-growing which the veriest tyro should not forego. Think out and originate new arrangements after familiarizing yourself with

the habits and colors of the bulbs you plant. I would simply suggest, in this connection, that by keeping each *kind* of bulb by itself you will be more likely to secure satisfactory results than you will by planting several kinds in the same bed. As a general thing, the various kinds do not harmonize well enough to warrant us planting them indiscriminately.

What kinds would I advise you to use? I would answer that question by advising you to procure the catalogue of some reliable dealer and study it well, and, having done this, to select such kinds as you think you would like best. Nearly all the bulbs you will find described there are hardy enough to stand a northern winter, especially if given such a covering as has been spoken of, and you can depend on them to produce fine flowers if your part of the work is well done. Therefore you will be safe in allowing your preference for color and kind to govern your selection.



OF late years bulbs have played a prominent part in the winter window-garden. The amateur florist has found out that they can be depended on to give greater satisfaction

OF BULBS

than any other class of flowers adapted to window culture, if properly treated.

The term "proper treatment," means a great deal more than one might think at first reading. It means that there is a right way and a wrong way to grow bulbs for winter flowering, and that success depends upon adopting the right way. Failure, either partial or complete, is pretty sure to result if we do not follow the treatment which experience has proved to be the safe and scientific one.

It is very important that the bulb which we intend to force into bloom in winter should be treated in such a manner as to imitate, as closely as possible, the conditions under which it would grow naturally,—that is, if left to take care of itself.

All bulbs have two distinct periods, or stages, of growth. One in fall, preparatory to spring's work, and the other in spring. The fall work consists in the development of roots by which the plant is to be supported and nourished later. The work of spring consists in the development of foliage and flowers. To imitate successfully the conditions which bring about these results, we must give the bulb we propose to bring into bloom in the house an

opportunity to develop roots fully before the growth of foliage or flowers begins. If we pot it and place it in the window at once, heat and light, combined with the effect of moisture in the soil, will excite it to such an extent that it makes an effort to develop both roots and top at the same time. In other words, top-growth will begin before there are roots to support it properly, and the result will be anything but satisfactory.

But if we pot the bulb and put it away in some cool, dark, quiet place for a time, it will form roots, while that part of it from which leaves and flowers are to be produced later remains dormant. In this way we imitate the processes of nature, and prepare the plant for the work demanded of it at a later period; we ask it to do but one thing at a time. By following out this plan we may have just as fine flowers from the bulbs we grow in the house in winter as we have from those in the garden in spring.

The soil for bulbs grown in pots should be a rich, mellow one, made up of garden loam, sand, and old cow-manure in equal parts. Work it over until you have a mass of fine material. Prepare it before the time comes to

NARCISUS IN INFORMAL SURROUNDINGS



OF BULBS

pot your bulbs, so that there need be no delay in planting them on their arrival. It is quite important that all bulbs should go into the ground as soon as possible after they are received, as the moisture which they contain evaporates rapidly, and with it goes much of their vitality. Leave them exposed to air and light for two or three weeks, and they will be so weakened that the flowers they produce will be few and inferior.

It is not necessary to give most bulbs intended for winter flowering the deep planting advised for those in the garden, as they will not be subject to the disturbing conditions which the latter must contend with. Simply press them down their depth in the soil; that will be sufficient. Do this when the soil is light and dry, then water them well to settle the earth about them, and they are ready to put away in the place where they are to be left until they have formed roots. If you have a cellar, put them there, darkening the windows in such a manner as to keep out all the light possible. The exclusion of light is important, because it excites the plant to make an effort towards the production of leaves and flowers before it is in a condition to do this satisfactorily. Heat also

does this, therefore a cool place is quite necessary for plants which are expected to develop roots before other growth takes place. If you have no cellar, an old shed or a closet will answer quite well, provided the conditions spoken of can be secured.

Some persons advise sinking the pots containing bulbs in trenches in the garden. I do not favor this plan, because it involves a good deal of labor by which I cannot see that anything is gained. I used to suppose it was really necessary to follow this plan, because nearly all writers on this subject advised it, but after trying the easier one outlined above and finding that it brought about results quite as satisfactory as the old method, I abandoned the feature of out-door storage, and I advise others to do so. There is only one argument in favor of the latter, and that is that plants stored out-of-doors can be kept dormant for a longer time than those placed where the cold is less intense. This argument, however, is not a weighty one, since experience has proved that by leaving house- or cellar-stored bulbs in the dark until we see fit to bring them to the light, we can, to a great extent, regulate the period of flowering to suit our wishes.

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If bulbs are watered well at the time of potting, it will not be necessary, as a general thing, to apply water for a month or more. None should be given unless absolutely needed. Examine the pots occasionally to ascertain the condition of the soil. If it is found to be dry, give just enough water to impart an even moisture to all the soil in the pot. As evaporation takes place slowly in a cool, dark place, a small amount of water will be found sufficient to supply all the requirements of the bulbs for some time.



IN potting bulbs the best results are secured by putting several in the same pot. Four Hyacinths or Tulips or Daffodils in a seven-inch pot will give a much finer effect than the same number of bulbs potted singly.

Roman Hyacinths are most effective when grown in shallow pans. Three or four dozen bulbs can be planted in a pan eighteen inches across,—indeed, the bulbs can touch each other,—and their flowers will be quite as fine as those from bulbs given more room. A well-grown pan of these charming flowers will be a mass of foliage and flowers that will afford vastly

more pleasure than a row of plants in small pots ranged along the window-sill.

I find the single varieties of the Holland Hyacinth much more satisfactory than the double ones. They seldom disappoint us, and this cannot be said of the double sorts. Single Tulips, also, are preferable to double ones for winter flowering.

Every collection of bulbs should include the Daffodil. I would choose it in preference to the Bermuda Lily if I could have but one. Nothing can be richer than the great golden flowers of the large-flowering varieties, and nothing can be more charming than the bright, cheerful blossoms of the smaller varieties in their various shades of yellow, cream, and ivory.

Everybody admires the Lily, and no collection of winter-flowering bulbs is what it ought to be without it. There is but one variety adapted to culture by the amateur, and that is the kind imported from Bermuda (catalogued as the "Bermuda Lily, or *Lilium Harrisii*), but more generally known as the Easter Lily, because it is forced so extensively for use at the Easter season. One might suppose, on first seeing it in its stately and immaculate

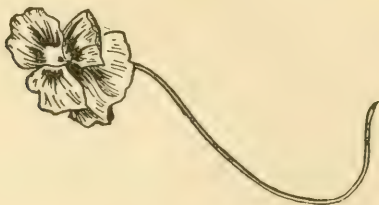
OF BULBS

beauty, that such a superb flower would be difficult to grow, but such is not the case. If one can procure good bulbs, the percentage of failure is less with this bulb than with any other except the Roman Hyacinth. Of late years imported bulbs have been somewhat diseased, and many plants have either produced inferior flowers or refused to bloom, but the florists have taken great precautions to prevent the spread of this disease, and it is now possible to get bulbs which are sound and healthy. In procuring them, always buy of some dealer who has established a reputation for handling only the best stock. Get the large bulbs in preference to the small ones, for they will give from four to eight flowers generally, while the small ones will seldom have more than two. The flowers of the small bulbs, however, will be quite as perfect and often as large as those of the large bulbs. If you select them personally, take those which feel solid and are heavy in the hand. Loose, flabby bulbs are the ones to expect failure from.

In potting this Lily one must follow a method quite unlike that advised for other bulbs. These Lilies produce two sets of roots. One set springs from the base of the bulb, and

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it furnishes nutriment for the healthy development of the plant. The other set is thrown off from the stalk which is sent up from the bulb, and its principal office seems to be that of providing a support for this stalk. In order to give the stalk-roots a chance at the soil, it is necessary to set the bulb low in the pot. I would advise the use of from eight- to ten-inch pots, three bulbs to a pot. Fill the pot nearly half full of soil, and press the bulbs down into it. As soon as the stalk appears and lengthens, fill in about it from time to time with soil, and keep on doing this until the pot is full. If this is done, the roots sent out from the stalk will generally furnish all the support the plant needs. Stakes are unsightly, and should be dispensed with if possible. In putting this bulb in cold storage, give it a place free from frost, as it is injured by freezing.



THE WINTER WINDOW-GARDEN

And the hyacinth purple, and white, and blue
Which flung from its bells a sweet peal anew
Of music so delicate, soft, and intense,
It was felt like an odour within the sense.

SHELLEY: *The Sensitive Plant.*

The beauteous pansies rise
In purple, gold, and blue,
With tints of rainbow hue
Mocking the sunset skies.

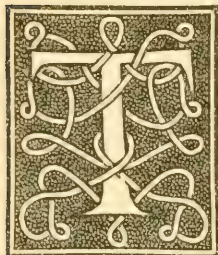
THOS. J. OUSELEY: *The Angel of the Flowers.*



Announced by all the trumpets of the sky,
Arrives the snow, and, driving o'er the fields,
Seems nowhere to alight: the whited air
Hides hills and woods, the river, and the heaven,
And veils the farmhouse at the garden's end.
The sled and traveller stopped, the courier's feet
Delayed, all friends shut out, the housemates sit
Around the radiant fireplace, enclosed
In a tumultuous privacy of storm.

EMERSON: The Snowstorm.

THE WINTER WINDOW - GARDEN



THE window-garden in winter is often a failure, so far as flowers are concerned. While there is always a great deal of beauty in "the green things growing," most persons are disappointed if there is not the brightness and cheer of bloom to relieve the monotony of the white world outside, and remind us of the last summer's beauty, or hint to us of the summer that is coming. This failure generally results from mistakes made in the selection of the plants with which we fill our windows. There are many kinds adapted to window culture which cannot be coaxed into bloom at this season of the year, and there are many kinds which would bloom in winter had they received the proper treatment to fit them for winter use. But because this treatment was not given at the right time they are worthless for the purposes of the person who loves flowers and would like to have her windows full

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of them from January to May. It will be readily understood from this that the success of a window-garden from which we expect blossoms depends very largely on the kinds and the condition of the plants we select to fill it.

It is true that the list of really good winter-flowering plants adapted to culture in the living-room is not a large one, but it is also true that there are enough of these to afford considerable latitude in the way of a choice. We need not duplicate our neighbors' gardens in furnishing our own if we know enough about plants to make an intelligent selection. But many amateur window-gardeners are not sufficiently familiar with plants to make such selection, and they must depend on the advice of others who have had experience along this line. It is with the hope that this paper may be of benefit to such persons that I have undertaken its preparation.



ALL things considered, the Geranium is our best plant for winter flowering. It blooms freely and constantly, in most instances, and adapts itself to the conditions prevailing in the ordinary living-room more

WINDOW-GARDEN

readily than almost any other plant I have knowledge of. And it requires very little care. Its ability to take care of itself is one of the strong arguments in its favor, especially with the amateur who is distrustful of his skill in the management of plants that insist on having their peculiarities humored. It has little to boast of in the way of attractive foliage,—though a plant well set with vigorous, healthy foliage is far from being unhandsome,—but it has a right to pride itself on the beauty of its flowers. Some of the scarlet varieties are so exceedingly brilliant that they actually seem to impart a feeling of warmth to the observer. The little child who declared that auntie's Geraniums were “on fire” was conscious of this suggestion of heat in the intensity of color which characterizes some of the most richly colored sorts. Others are extremely delicate in color and tint. Some are pure white. All the recently introduced varieties have large, wide-petalled flowers, borne in trusses of good size, on long stalks. A well-developed plant, symmetrical in shape and properly furnished with foliage to serve as a background against which to display its blossoms effectively, is a magnificent

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sight when in full bloom, notwithstanding the fact that some persons sneer at the Geranium as being "common."

All beauty is common in a sense, and I would as soon object to the sky and the sunshine because the beauty of them is for the enjoyment of everybody, therefore "common," as to seek to disparage a flower because it was one that everybody could grow and enjoy. Anyone can undertake the culture of the Geranium with reasonable certainty of success who can give it a good soil to grow in, water enough to keep it always moist at the roots, a sunny location, and freedom from frost. Insects seldom attack it. It has a healthy constitution that gives it immunity from the disease so common to most other plants, and it will reward you for the care it receives at your hands by making your window bright with bloom as few other plants can. Therefore you make no mistake in selecting it for your window-garden. But be sure to get plants that have not been allowed to bloom during the summer. Such plants have exhausted themselves, and, nine times out of ten, they will insist on taking a rest during the winter months. The ideal Geranium for winter use is the plant which has been kept

WINDOW - GARDEN

steadily growing during summer, but has had every bud removed as soon as seen. Such a plant will bloom profusely from January to June.

The Abutilon is an excellent winter bloomer. It has the twofold merit of having fine foliage and pretty flowers. It is commonly known as Flowering Maple, because of the striking resemblance of the foliage of most varieties to that of our native Sugar Maple. It is sometimes known as Bell Flower, because of the shape of its pendent blossoms. It can hardly be called a profuse bloomer, but it is a constant one. In color it ranges from pure white to dark crimson, scarlet, pink, and yellow. It is of comparatively rapid growth, and small plants soon become good-sized specimens. Its habit of growth is upright, and by judicious training it can be grown as a miniature tree that will always attract attention and challenge admiration, with its wealth of bright, glossy foliage, beneath which its bell-shaped flowers swing gracefully on their long, slender stems. Like the Geranium, it is almost entirely free from insects. This is a feature that will recommend it to those who have had to fight for the life of their plants against aphid, scale,

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mealy-bug, and red spider. Any plant strong and sturdy enough to take care of itself in this respect will commend itself to the woman who has had experience with insect enemies.



AMONG the flowering Begonias we have several varieties admirably adapted to winter use. The best of the list, in some respects, is *Begonia Rubra*, with bright, coral-red flowers and luxuriant, dark-green foliage. I know of few plants that bloom more profusely and persistently. I have had plants of this variety that were not without flowers for periods of two and three years. They were out of blossom only when they were cut back and compelled to renew themselves by a vigorous development of new branches. The double-flowered kinds of recent introduction are very free bloomers, and their great clusters of carmine flowers show to superb effect against the rich, glossy green of their foliage. *Gloire de Lorraine* is another most charming variety. Small plants will be literally covered with flowers for many months. These flowers, which are of a bright rose color, are borne in wide-spreading panicles that droop over the pot and give

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the effect of having been trained to grow in pendent form, but it is the profusion of bloom that causes them to droop. This variety is far more floriferous than any other I have ever grown, and no well-regulated window-garden can afford to be without at least one specimen of it. Young, vigorous plants are now offered for sale each fall by nearly all florists, and these are the plants to depend upon for winter bloom. I would not advise the amateur to attempt growing this variety from cuttings, because he will fail ninety-nine times out of a hundred. But he may feel reasonably sure of success with plants grown to flowering size by florists who have a knowledge of the plant's requirements in the earlier stages of its development.

The *Heliotrope* is one of our most neglected flowers. But it always comes in for a great deal of admiration when well grown, and it can be grown very satisfactorily with but little trouble. It should be given a soil full of fibrous matter, with a good deal of sharp, coarse sand worked into it—enough to make it so friable that a handful of it, after being squeezed together, will fall apart readily when pressure is relaxed. It should also be given

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considerable root room. It will not grow or bloom when pot-bound. It should have a sunny place, and at no time should it be allowed to get dry at its roots. If it does, the plant will shortly shed its foliage. It has a multitude of thread-like roots which take up water rapidly, therefore it will be necessary to water it much oftener than you do such plants as the Geranium, which have but few roots, and these rather large ones. Kept moist at all times, and given plenty of sun, it will delight you with its clusters of deliciously fragrant flowers, ranging in color from nearly white to pale blue and dark purple. Cutting the flowers does this plant good, for whenever you clip off a cluster of bloom new branches immediately start on the stalk below, and these in a short time will bear flowers. By frequent pruning you can keep the plant growing throughout the entire season, and as long as it grows it will bloom if proper treatment is given in the manner already spoken of. It is a good plan to feed a spoonful of bone-meal once a month to each plant in an eight- or nine-inch pot.

The impression prevails to a surprising extent that the ordinary Fuchsia is a winter bloomer. Not one person in twenty growing

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it in the winter window-garden succeeds in coaxing a flower from it between January and April, but this failure does not enlighten them as to the true nature of the plant. The fact is that, with one or two exceptions, the Fuchsia is strictly a summer-flowering plant. It exhausts itself in summer and insists on resting in winter. This being the case, the best place for it, after completing the work of the season, is the cellar, and there it should be left until March, when it can be brought up and got into condition for another summer's work. But there are two or three varieties which bloom well in winter if not allowed to bloom in summer, and the best one of these is *speciosa*. This is, when properly managed, a most satisfactory winter-flowering plant. It is not as showy as many other varieties, but it has enough real beauty to recommend it to the attention of the lover of fine flowers. It is single. It has pinkish-white sepals and a bright carmine corolla. Its flowers are produced in great quantities at the extremity of the branches. They are pendent in habit and extremely graceful. Give the plant a light, porous soil, keep it well watered, and shower its foliage two or three times a week to prevent

the red spider from doing it harm. Keep it away from strong sunshine. An east window suits it much better than a southern one. An east window, by the way, is an ideal one for Begonias.



PPRIMULA OBCONICA I consider one of our most desirable winter-flowering plants, because it requires very little care, and gives such a wealth of bloom in return for the slight attention bestowed upon it. About all it asks is plenty of water. We do not have to fight insects on it. We do not have to be particular as to the temperature of the room it grows in, providing we keep it above the frost point. It seems utterly unmindful of the fluctuation of the living-room thermometer. Its flowers are sometimes almost white, but with a tint of rose or lavender showing in them, at other times decidedly pink. This is not the result of exposure to light, but is a peculiarity of the plant. The blossoms are always charming, with a wildwoodsy air that suggests Hepaticas, Trilliums, and Spring Beauties. The individual flower is about the size of a silver quarter, but there will almost



PRIMULA—AN EFFECTIVE PLANT

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always be from a dozen to twenty blossoms in each cluster at one time, and there will generally be several of these clusters from each plant, so the effect is a showy one. The foliage of the plant is produced in a thick mass, at the surface of the soil, and the flowers are thrown well above it on stalks six to eight inches long. This plant, like the *Heliotrope*, has a great mass of very fine roots, therefore it requires a great deal more water than the ordinary plant.

A near relative of *Primula obconica* is *Primula Forbesii*, better known as the "Baby Primrose," because of the dainty character of its diminutive flowers. This is a most charming plant,—a lovable plant, in fact,—and those who grow it one season will never willingly be without it thereafter, I venture to prophesy. It blooms all the time,—it would bloom the year round if we would let it,—and there are so many of its tiny flowers that we forget all about size in the consideration of quantity. Each plant is made up of several "crowns," or divisions, and each division generally has one or more flower-stalks in evidence. The flowers are produced in successive whorls on these slender stalks, and are of a rosy lilac color with a greenish-yellow eye. Water well.

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The good old Chinese Primrose deserves a place in all collections. It is one of the "stand-bys," blooming constantly and freely. It ranges in color from pure white to red, carmine, cherry, and violet. It requires only ordinary care, so far as soil and general attention is concerned, but you must be sure to pot it "high"—that is, to see that the crown of the plant is so far above the soil that water will not collect and stand about it. If water does collect there, decay almost invariably sets in, and that means the death of the plant in a short time. This plant does well in comparative shade, as does *Primula obconica* and the Baby Primrose. They are therefore well adapted to places which the larger plants in the window keep the sun from.

The scarlet *Salvia* is fine for winter use if showered so frequently that the red spider cannot establish itself on it. I would advise taking a shoot from an old plant in the garden, just before frost comes. There will be plenty of these shoots, as a general thing, that can be separated from the parent plant in such a manner as to secure some good, strong roots with them. Pot them in a moderately rich soil. They will make rapid growth as soon as they

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become well established. Pinch them back from time to time to secure a bushy, compact development. By January you ought to have a good-sized plant, with many flowering points. When it puts forth its spikes of intensely vivid scarlet flowers you will find it a rival of the most brilliant Geranium, and those who have tired somewhat of the latter will consider it preferable in all respects, perhaps. Shower it all over at least twice a week,—once a day would be better,—and head off the red spider in this way. But neglect the shower-bath for a few days and you will find many yellowing leaves on the plant, and examination of the underside of them will show that the enemy has taken advantage of your negligence and established himself most thoroughly. It is much easier to keep him away altogether, by the liberal use of water from the beginning, than it is to get rid of him after he has obtained a foothold on the plant.

The common single Petunia is a very satisfactory winter bloomer. You can always find plenty of good, strong seedlings in the bed in fall. Pot one of these, and it will soon develop into a fine specimen. It will begin to bloom when quite small, improving in all ways as it

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increases in size. A vigorous plant will often have as many as a hundred flowers on it at one time. After a while it is well to cut the old branches back within a few inches of the pot. Give the soil a spoonful of bone-meal when you do this, and in a short time new branches will put forth, and soon you will have a plant which has entirely renewed itself and begun to bloom again. Do not make the mistake of selecting double Petunias for winter use. They almost invariably fail to perfect their flowers in the living-room. If you have a particularly fine single variety which you would like to carry through the winter, root a cutting of it in sand, or take up the old plant, cutting it back to a mere stub at the time of potting. You will have to do one or the other of these things in order to make sure of getting what you want, as we cannot depend on seedlings coming "true," as the florists say—that is, reproducing the exact characteristics of the parent plant. Petunias are admirably adapted for growing on brackets if their branches are allowed to droop over the pot and train themselves. They are more graceful when grown in this way, in the house, than when trained over a trellis, or tied to stiff supports.

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BROWALLIA MAJOR is a comparatively new plant. It is of extremely easy culture. Those who are fond of blue flowers will prize it highly, as it is of a shade extremely rare among house plants. It begins to bloom when quite small, but it is not until it grows to some size that it is at its best. It is grown from seed or cuttings. This, like the Petunia, is a fine bracket plant if allowed to train itself. It is also very effective as a basket plant.

Another garden plant that can be strongly recommended for the winter window-garden is the Ageratum. Old plants which have done summer duty can be divided in late autumn, and each division will speedily develop into a fine plant from which you can expect flowers throughout the entire winter. The Ageratum is always a favorite with the lover of dainty flowers because of its exquisitely delicate lavender-blue color.

Another excellent but little grown flower is Plumbago capensis. This is nearly of the same soft, beautiful color as the Ageratum, but here all resemblance between the two ends. The Plumbago frequently grows to be six and eight feet tall, and can be trained about a large window with charming effect. Its flowers are

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shaped like those of the annual Phlox, but are borne in loose spikes at the tip of the new branches. To keep it blooming, cut back the old growth now and then and feed the plant well to encourage constant development. As long as it grows it will bloom. It is to be wondered at that a plant of so much beauty is so little cultivated. The impression probably prevails that it is not an easy plant to manage, but such is not the case.

Ten-week Stock—the “Gillyflower” of our grandmothers—is another garden flower that can be made good use of in the house in winter. Take up the smallest of your plants just before cold weather comes. Cut away most of the top, leaving about eight inches of the main stalks, with stubs of branches. Pot it in ordinary garden loam, water it well, and put it in a shady place until it becomes established in its new quarters and shows signs of growth. Then remove to a light but cool place. For rooms where there is no fire heat, but are frost-proof, it is one of the best plants we can select, as it will bloom constantly and profusely. Its flowers, which are very lasting in quality, are borne in spikes six or eight inches long. They come in red, mauve, lilac, pale yellow, and pure

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white. Their fragrance closely resembles that of the Carnation.

The Marguerite Carnation as a garden flower is a comparative failure, because it seldom comes into full bloom before cold weather puts an end to it. But if plants having double flowers of fine color are potted in late October they will continue to bloom throughout the winter in the window-garden and give nearly as much satisfaction as the greenhouse varieties of Carnation. Their flowers are smaller, as a general thing, than those of the greenhouse sorts, but frequently they are quite as double and nearly always as fragrant, and they have the merit of seldom splitting the calyx. Care must be taken to shower the plant frequently and liberally, as the red spider delights to work on it in a dry atmosphere. This Carnation likes a cool room, and can be grown with Ten-week Stock in windows some distance from the living-room fire. Try a few plants of it this season and you will be sure to include it in your list in future. It will give you a dozen blossoms where you would get one from the greenhouse sorts.

The Azalea is a favorite plant for winter-flowering, and its popularity is richly deserved.

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Well-grown specimens will be literally covered with flowers of most lovely shades of red, rose, cherry, and pure white, some single, some double—all beautiful. They last for weeks if kept in a cool temperature. The room that suits the Ten-week Stock and the Marguerite Carnation will suit this plant perfectly, therefore the three make a fine combination for cool but sunny windows.



NO winter window-garden collection can be considered complete nowadays if it does not include such bulbs as the Holland and Roman Hyacinths, *Lilium Harrisii*, and several varieties of *Narcissus*. These can be potted in October and November, put away in a dark, cool place to form roots, and left there until the first of January or later. Bring them out when the top has begun to push up, and they will soon make vigorous growth under the combined influence of warmth and light. Plants potted in the months named ought to come into bloom in February.

It must not be understood by the reader that because I do not extend the list I have made

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mention of all kinds of plants which I consider desirable for winter use where flowers are demanded. But I have named those I consider most likely to afford satisfaction to the amateur. There are many kinds which the experienced gardener can coax into bloom which the amateur would fail utterly with, and these I do not think it worth while to say anything about in this connection.

There are many plants having fine foliage which can be grown to excellent advantage with flowering ones. Their leaves will admirably supplement the beauty of the blossoms, and there *may* be times when they will have to be depended on to make the window-garden attractive. I would advise including several plants of the Madame Salleroi Geranium, with its green and white foliage, Begonias argentea guttata, olive and dull red, with silvery-white spots, and maculata aurea, gold-spotted and blotched on a dark green mound, and anthericum variegatum, a plant having grass-like foliage of pale green striped with pure white. These are all easily grown. Their foliage is almost as attractive as flowers, and they will do much to brighten up the window-garden when there are few flowers in it.

BEFORE closing this paper it may be well to give a few general directions about the care of plants grown for winter flowering. In late fall we seldom have much sunshine, and evaporation of moisture from the soil will be slow. Our plants at this season will, for the most part, be making very little growth, and a plant not growing actively is not in a condition to need much water. Therefore we must be careful to give only enough to keep the soil moderately moist. It should never be wet. If we were to water freely at this time, a souring of the soil would most likely take place, and this would result in a diseased condition of the roots, from which the plant might not recover. As soon as sunny weather sets in and the plants begin to make a vigorous growth the supply of water can be increased. Let the increase be in proportion to the development of the plant.

Plants not making much growth are in no need of a fertilizer, because they are not in a condition to assimilate it. The application of one at such times will do great harm. Wait until they begin to grow, and then apply it. Give it in small quantities at first, and increase it from time to time as the condition of the

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plant warrants. But never give enough to bring about a forced growth. Aim always and only to secure healthy development. A plant forced into rapid growth is never a healthy one, remember. It will lack the vitality necessary to carry it through the working period successfully.

Give all the fresh air you can. Open doors and windows at some distance from your plants on pleasant days, and give your plants a chance to breathe in pure oxygen in liberal quantity. Give all the sunshine you can. And aim to keep the temperature of the room between seventy degrees by day and fifty-five at night. It will probably exceed these figures in both directions, but try to regulate it in such a way as to avoid the extremes of intense heat and dangerous cold.

Use water liberally on the foliage of your plants. By washing off the dust, it keeps open the pores of the leaves through which they breathe, and it tempers the hot, dry atmosphere usually prevailing in the living-room. The only way to modify this condition is to keep water constantly evaporating on stove or register and make frequent use of the sprayer.



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The violets whisper from the shade
Which their own leaves have made:
Men scent our fragrance on the air,
Yet take no heed
Of humble lessons we would read.

CHRISTINA G. ROSSETTI:

"Consider the Lilies of the Field."



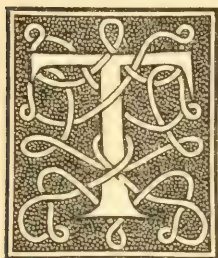
In Eastern lands they talk in flowers,
And they tell in a garland their loves and cares;
Each blossom that blooms in their garden bowers,
On its leaves a mystic language bears.

PERCIVAL: The Language of Flowers.

Art thou a type of beauty, or of power,
Of sweet enjoyment, or disastrous sin?
For each thy name denoteth, Passion flower!
O no ! thy pure corolla's depth within
We trace a holier symbol; yea, a sign
'Twixt God and man; a record of that hour
When the expiatory act divine
Cancelled that curse which was our mortal dower.
It is the Cross !

SIR AUBREY DE VERE: The Passion Flower.

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O grow flowers to perfection, in the winter, one must have better facilities than those afforded by the windows of the living-room. While it is true that many kinds may be grown comparatively well there, it is also true that many very desirable kinds cannot be grown there at all, and those with which we attain a fair degree of success are never grown in anything like perfection. One has only to go from the window-garden to a greenhouse to find proof of this assertion. The plants grown by the florist, who can control heat and light and moisture, resemble the plants in the window-garden only in general features, though investigation may show that they are identical as to variety. But the florist's plants will have a vigor of leaf and flower that those in the window-garden seldom attain to.

The wide difference in appearance does not

come from better care, as some suppose, but from more favorable conditions. As a general thing, the owner of a window-garden lavishes more care upon her plants than the professional florist does on his. She has to do this in order to secure even a moderate degree of success. Half that care expended on plants grown in quarters more favorable to healthy plant development would enable her to grow plants quite as well as the professional. How she would like to do that! She has tried her best to make her plants equal those she has seen at flower shows and florists' exhibitions, but her efforts have always fallen far short of the success she aimed at. By and by, after years of repeated effort, she has come to the conclusion that it is impossible to grow such plants as she would like to in the sitting-room windows, and she feels that she must be content with inferior specimens. This is always a source of keen regret with the person who grows flowers from a love of them, and who, because of that love, would delight in seeing them reach that perfection which she knows plants can be brought to under right conditions. She is right in her conclusion as to the impossibility of achieving anything but mediocre success with plants in a

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room where the atmosphere has very little, if any, moisture in it, and where the temperature is away up in the nineties at one time, and down dangerously near the freezing-point a few hours later. Here the red spider and the aphis will flourish and do their best—or their worst—to complete the work begun by moistureless air and a temperature which goes to extremes, combined with lack of sufficient light. Only when one has a place made expressly for plants, where all the conditions of heat, moisture, and light are under control, can a satisfactory measure of success in their culture be attained.

The idea prevails that a greenhouse is, and must be, an expensive luxury. That it is a luxury we admit, but it is not an expensive one, neither is it one of those luxuries which come under the head of foolish extravagances on which money is, to all intents and purposes, thrown away. Flowers are like books and pictures and music to those who love and understand them. They do much in refining and uplifting and developing our better natures, and soon become as much necessities, if we give them a chance, as the books and music cultivated people cannot well get along

without. They should be classed among the necessary luxuries of life.



THE primary idea of a greenhouse is simply a building or room where summer can be kept prisoner over winter. It need not be elaborate in any sense. The plainest structure that is built sufficiently snug to keep heat in and cold out, and affords free entrance to light and sunshine, will grow plants just as well as the most ornate building,—better, perhaps, for many greenhouses defeat some of the objects aimed at in their construction by excess of ornament, which interferes with light and ease of management. I know of one amateur's greenhouse which is really nothing more than a shed whose board roof has been removed and one of glass substituted, but this plain little building has in it plants which would do credit to the most elaborate conservatory equipped with every modern convenience. The owner of this cheap building picked up here and there some of the material from which he constructed it, buying it as he could afford to do so, and storing it away until he had enough to warrant

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him in beginning his house. He built it himself, working "between-whiles." It is not ornamental from without, but those who go into it forget all about the building in their admiration for the beautiful plants it contains. You could not make its owner believe that the money that went into the house could have been invested in any other way that would have "paid" half so well. No dividends of dollars and cents have been declared in his investment, but he has realized as much pleasure from it as, I presume, his millions have ever afforded Andrew Carnegie.

The home greenhouse can be built as cheaply as any other part of the dwelling, and with as little trouble, if the person who has supervision of the job understands what is necessary to do. Before beginning the work a plan should be prepared, and this should be gone over with the carpenter and care taken to see that he understands it in all its details. This is important. If the builder does not fully understand the work he is to undertake, and you cannot clearly explain it to him, let him visit some greenhouse and get ideas from it to help him out.

In making your plans, consider, first of all,

the location of the building. Sunshine must be secured in order to make a success of plant-growing, and your building must have a location where it will not be much shaded by other buildings. If it is on the south side of the house, and can have sunshine from early morning until two or three o'clock, it will not matter if there are buildings to the west of it which shut off the later sunshine. The sunshine needed most is that of the forenoon and mid-day. A house which only gets the benefit of sunshine up to noon will enable one to grow such plants as begonias, fuchsias, ferns, palms, and many others as well, but geraniums, heliotropes, and others fond of a great deal of sunshine will need more than a short forenoon affords. A western exposure is not satisfactory because of the intense heat which characterizes afternoon sunshine. All things considered, an even-span house—which means a house having a roof of equal size on each side—running north and south will be most satisfactory, but a “lean-to” sloping to the south or southeast will answer almost as well.

It has been customary among professional florists to construct a frame by setting posts in the ground, precisely as fence-posts are set, and

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boarding these up to form the side-walls of the greenhouse. In boarding them matched lumber is used, outside and in, with sheathing paper between each thickness of boards. A very good wall is secured in this way, but it is never as "true" as it ought to be, because of the difficulties of getting the posts strictly in line. Nor is it as lasting in its character as it ought to be for a greenhouse attached to the dwelling. This part of the house ought to be built as solidly and substantially as any other portion of it, because, once built, and built well, it is good for a long term of years, while a cheaply built affair will soon begin to go to pieces. It pays to build the greenhouse on a foundation of stone let into the ground deep enough to go below the frost-line. If this is done, there will be no heaving, with consequent loss of glass and other annoyances resulting from unstable foundation. Posts soon begin to rot below the soil, and this is the beginning of the end with a house built on such a framework. But a house built on a stone wall is never subject to decay, except from internal moisture, and that can be largely avoided if plenty of paint is used. Erect your frame on the wall precisely as you would the frame of any other part of

the house, subject, of course, to the modifications of your plan.

I might outline a plan here, but as the conditions vary so greatly under which small home greenhouses are likely to be built, I hardly think it advisable to do so. I would simply say, have as little woodwork about the house as possible. The side and end walls, to the height of three feet from the ground, may be boarded up outside and in, but above that height by all means have sash. In other words, let all that part of the house above this three feet of boarded wall be composed of glass as far as possible. Of course, there will have to be studding to support the roof and to fasten the sash-frames to, but no boarding anywhere above this wall. A little study of the plan on which modern greenhouses are built will enable any carpenter to get the idea more clearly than I can put it into words. The principal things to keep in mind are these: To so construct the house that the least possible obstruction will be afforded against the entrance of light, and to make it so snug that there are no cracks and crevices through which sharp winds and frost can gain admission. In making the roof, be sure to use the light sash-bar now so popular. Heavy

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rafters, which are no longer used, cost much more than these bars, interfere greatly with the admission of sunshine, and add nothing to the strength of the roof. If sash-bars ten to twelve feet long are given the support of one one-inch pipe, running lengthwise of the house, no other support will be needed by the roof. This pipe should, of course, rest on upright piping set about eight feet apart, to prevent it from sagging under the weight of the glass of the roof. To-day the frame-work of the best greenhouses is composed largely of iron piping which fits together with screw joints. This gives a rigid but light and airy-looking frame, and one that offers but little resistance to the entrance of light. The up-to-date carpenter will be able to apply the suggestions made to the house he builds in such a manner as to make it effective and satisfactory without the expenditure of much money.



DECIDE the size of the house you want, and then let him draw plans for it and make an estimate of probable cost. First-quality lumber will not be required for boarding if sheathing-paper is used liberally,

as it should be, for it is a most efficient protection against cold. I would advise boarding up the walls, outside and in, with cheap lumber, then covering it with two thicknesses of paper. I would finish the inside wall with matched ceiling lumber, running up and down, that the grooves may assist in carrying off water instead of retaining it, as they would if the boards ran lengthwise. Outside, I would finish the walls with what is called "ship-lap." This makes a snug joint which will not open if the lumber shrinks, and affords ample security against the admission of rain and wind. The air-space between the outer and inner boarding is a most efficient non-conductor of cold. By the exercise of a little extra care in the construction of such a wall it may be made practically air-tight. There is economy in building well, in the long run, for a snug house saves fuel.

If the sides of the house are five feet high—and that is a good height for them—and the three lower feet of the wall are boarded as advised, there will be left a space of about two feet for sash. This sash should be hung by hinges to the plate, so that it can be swung outward for ventilation. There should also be

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sections on each side of the roof so arranged that they can be opened for ventilation. There are ventilating appliances now on the market which so add to the ease of management and control of the greenhouse that no one can afford to be without them. By simply turning a crank attached to a rod and connected with a wheel and a set of arms fastened to the sash of the ventilators in the roof, those sections are opened to suit the need of time or season, and a reverse turn of the wheel closes them. The lifting-arms are so connected with the rod that they are held rigidly in any position where you see fit to leave them, consequently there is no possible danger of accident from sudden winds. A similar apparatus makes it an easy matter to open the side ventilators by simply turning a crank. The sash-bars advised for the roof are so constructed that when they are fastened in place, at ridge and eave, it is an easy matter to put the glass where it belongs, and a cap which fits snugly over the shoulder of the bar and fastens by screws holds it firmly in place without brad, tack, or putty. This is a vast improvement over the old method of glazing the roof, and makes it easy to replace broken glass. The glass for the roof, let me remark

right here, ought always to be what is known as "double-strength." Very severe hailstorms will not injure it, but roofs glazed with single-strength glass are not strong enough to withstand the effects of a slight storm.



HOW to heat a greenhouse is one of the problems which the builder often finds perplexing. Shall he use steam, or hot water, or furnace heat, or depend on oil-stoves, or warmth from the adjoining rooms? If the building is a very small one and it is well made, an oil-stove may be sufficient to furnish all the heat needed in ordinary weather, and a second stove could be held in reserve for very cold spells. If the building happens to be attached to the dwelling and there are wide openings between it and the living-room, enough heat will generally be admitted to keep out frost. But it is not safe to depend on such a method of heating unless the plant-room is very small indeed. Furnace heat can be supplied from the cellar or basement if the dwelling is heated in that manner, but I consider this the poorest of all heat for a greenhouse. Steam heat is perhaps

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cheaper than any other for large houses, but the ideal heat for small ones is that furnished by hot water. If the dwelling is heated by this system, it is a comparatively easy matter to extend the piping to the greenhouse. If there is no way of supplying heat from the house system, and the greenhouse is sixteen by twenty feet or larger, I would advise the use of one of the small hot-water heaters made for this particular purpose by several firms who deal in greenhouse supplies. These small heaters cost about as much as a parlor coal-stove, are self-feeding, and can be left to take care of themselves at night. They can be depended on to furnish a sufficient amount of heat for the coldest weather if properly regulated. If this system of heat is decided on,—and, as I have said, it is an ideal one,—correspondence with the manufacturers of these heaters will enable you to determine the size of the heater needed to perfectly warm your house in the coldest weather. Simply tell them the size of it and the amount of glass on roof, sides, and end. If you submit a rough diagram showing size and location, they will willingly furnish you with a plan for piping it without charge. The house heated by hot

water can be kept at almost any desired degree of temperature by the adjustment of the drafts of the heater. An even, summer-like heat is furnished in which all kinds of plants flourish. Hot-water heat is preferable to steam for small houses because of its economy. In the use of steam it is necessary to raise the water to a certain temperature before any heat is given off in the pipes upon which the greenhouse depends for warmth; in other words, the water must boil before there is any heat in the pipes. To keep up circulation, the fire must be kept burning briskly. Let it die down, and your heat supply is cut off.

But with hot-water heating circulation begins in the pipes as soon as the water becomes warm, and it continues as long as there is any fire. It will readily be seen, therefore, that for mild weather hot-water heating is far superior to steam heating, while all that one has to do to obtain heat enough from it to meet the demands of cold weather is to open the drafts and bring about more energetic combustion. The management of a hot-water heater is so simple that a child can soon learn to operate it.

Quite satisfactory substitutes for a real greenhouse can be made by enclosing veran-

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das with glass, if they open off the living-room in such a manner that warmth can be admitted readily to them. If there is only a window or a door between them, I would advise cutting away enough of the wall to make the opening several times larger than that afforded by the removal of these. Glazed doors can be fitted to the opening or curtains can be hung there. Doors which enable you to shut your plants away from the living-room when it seems desirable to do so are preferable to hangings, as they make it possible for you to use water so freely on your plants that the air about them can be kept moister than you would care to have it in the living-room, and that is precisely what they like. Of course, it is not possible to grow the variety of plants in such a room that can be grown in a real greenhouse, but the conditions can be made so much more favorable to healthy plant growth there than they can ever be in the living-room that one's chances of success with a wide range of plants are greatly increased. Such a plant-room, while in every way vastly inferior to a greenhouse, will be found so great an improvement on the ordinary window-garden that money is well invested in making it.

THE HOME

The home greenhouse, though small in size, enables us to grow decorative plants to a size that makes them extremely useful in room decoration. The woman who has some good-sized Palms, Ficuses, Grevilleas, Aspidistras, and other plants of that class is never at the mercy of the weather or the florist in preparing her rooms for the reception of visitors. The material needed is at hand, and she takes great pride in it because it is her own. Old plants seem like members of the family, and with a greenhouse for them to develop in they seldom outgrow their quarters. Such is not the case with plants growing in the living-room. By the time they begin to be most enjoyable they are too large for the windows, and we have to discard them and begin again with small ones. The list of plants that can be grown in the greenhouse is a long one, while the list of those which can be grown successfully in the living-room is a very limited one and includes but few of the plants we care most for.

If you decide on building a greenhouse, do not make the mistake of having it too small. If you have had only a few plants in the window, a room twelve or fourteen feet square will seem large enough to you to hold all the plants

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you will ever care to grow. But I venture the prediction that you will wish in a short time that the room was as large again. When we have conveniences for growing all kinds of plants our collections increase rapidly. We seldom go away from home without finding new plants to bring back with us. The cost of a house sixteen by twenty or twenty-four feet is not a great deal more than that of one twelve by sixteen or thereabouts. The smallest size of hot-water heaters is easily equal to the task of heating the sixteen by twenty-four house, and the extra amount of coal used in doing it costs but little.

If possible, have the greenhouse attached to the living-room or the dining-room in such a manner that the beauty in it is at all times enjoyable by the family. It should be easily accessible, that one may get into the habit of spending the "odd minutes" there, for there will be always work to do among the flowers. And delightful work it is—pleasant work, restful work—work that you will never tire of.

THE CULTURE AND THE CARE OF PALMS



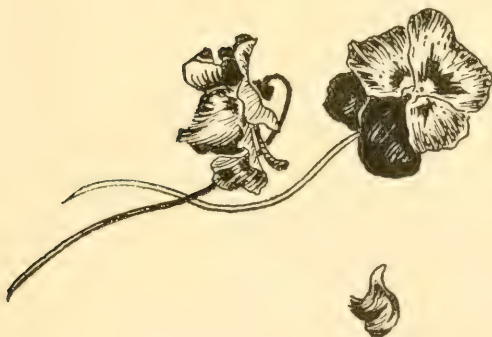
Next to thee, O fair gazelle,
O Beddowee girl, beloved so well;

Next to the fearless Nedjidee,
Whose fleetness shall bear me again to thee;

Next to ye both I love the Palm,
With his leaves of beauty, his fruit of balm;

Next to ye both I love the Tree
Whose fluttering shadow wraps us three
With love, and silence, and mystery!

BAYARD TAYLOR: The Arab to the Palm.



Of threads of palm was the carpet spun
Whereon he kneels when the day is done,
And the foreheads of Islam are bowed as one !

To him the palm is a gift divine,
Wherein all uses of man combine,—
House and raiment and food and wine !

And, in the hour of his great release,
His need of the palm shall only cease
With the shroud wherein he lieth in peace.

“Allah il Allah!” he sings his psalm,
On the Indian Sea, by the isles of balm;
“Thanks to Allah, who gives the palm!”

WHITTIER: The Palm-Tree.

THE CULTURE AND THE CARE OF PALMS



THE popularity of the Palm is well deserved, for it is really a beautiful plant if well grown. The fatal "if," you see! There is no avoiding the use of it in this connection, because it is a sorry fact that nine out of every ten plants we see are not well grown. Perhaps I would be justified in putting the proportion at nineteen out of twenty. Certain it is that we find very few really fine specimens of the Palm outside the greenhouses. The impression prevails to a considerable extent among amateurs who have tried to grow the plant well and failed that it will live in the dwelling-house, but it cannot be made to flourish there. Such is not the case. It can be made to grow most luxuriantly under the conditions which prevail in the ordinary home provided it is given the right kind of treatment.

The average Palm has few leaves,—the older ones having been removed because of

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general unsightliness,—and these few are brown and dry at the tip of each leaflet. Healthy color is lacking. The impression that the plant gives you is that it would die if it could, but it cannot. Because of great inherent vitality it keeps on living against its better judgment. It feels that it is not a credit to itself, and that it poorly plays its part in the general decorative scheme, but—it knows that the fault is not its own. And the owner of it feels equally sure that the fault is not hers. She has heard of a great many things that will bring about success in the culture of these plants, and she has tried them all. Has she not bathed the leaves with oil, as advised? Has she not buried pounds of beefsteak at its roots? Is there anything in the long list of “desirable fertilizers” she has not experimented with? And yet her pet plant has not improved. On the whole, it has grown more shabby and unsightly month after month, until she has about lost all hope of its ever realizing the ideals she has formed when she brought it home from the greenhouse.

The fact is, the Palm is a comparatively slow grower under the conditions which exist in the ordinary living-room, and we, in our impa-

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tience to make a large plant of it, subject it to a sort of crowding process which brings about results directly the opposite of those aimed at. Instead of developing the plant, we arrest development and make it a sort of dwarf. This we do by our mistaken kindness in treating it to all kinds of fertilizers without taking the trouble to find out whether they suit the needs of the plant or not. We overfeed it and breed a dyspeptic condition, which results in the chronic ill-health that characterizes most of the plants we see.

Now, the Palm likes a moderately rich soil, but it does not submit kindly to an attempt at forcing its development. It likes to take its own time for that. It likes to grow when it feels like it, and rest when the mood to do so takes possession of it. If you would have fine Palms, you must humor their whims, if whims they are. If they seem inclined to stand still, you make a most serious mistake by trying to force them into activity by the application of rich food. A dormant plant is not in the condition to make use of it. Wait until growth sets in, and then apply your fertilizer, but give it in small quantities at first. As development increases, increase the supply of plant food, but

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never give more than enough to bring about a vigorous, healthy development. That is what you should aim at always. I am aware that the amateur will say right here that such advice is vague. How much fertilizer is to be considered as "enough"? To this I can only answer that it is impossible to lay down any hard-and-fast rule as to quantity. Fertilizers differ in strength. Soils differ in quality. The owner of a Palm must find out how much to use by careful experiment. Give a little, and watch the result. Learn by observation; but be careful not to overdo matters at the outset. It is better to keep on the safe side by underfeeding than to do your plant an injury by feeding it too much. If the new leaves that appear are of a dark, healthy color and of good size, with stalks slightly longer than those which were on the plant when you bought it, be satisfied. And be satisfied if your plant produces two or three good leaves a year.

A word as to the kind of fertilizer to use. I depend entirely on bone-meal. Some use liquid fertilizer prepared from barnyard manure. This is good, but it almost invariably breeds worms in the soil. The bone-meal will not do this, therefore I prefer it. In preparing soil

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for potting Palms I mix the bone with ordinary garden loam in the proportion of a teacupful of the former to a bushel of the latter. This is the compost in which I would expect the plants to do well at all times, but when growth was being made I would add a spoonful of bone to each seven- or eight-inch pot, working it well into the soil about the roots of the plant. I would repeat the application once in three months if growth continued. As a general thing, under good treatment the Palm will grow pretty nearly the year round.

Good drainage is an item of great importance. I believe that more Palms are lost because of poor drainage than from all other causes. If the soil retains water unduly, it soon sours, and this condition of it is sure to bring on a disease of the roots; and as soon as the roots of a Palm become diseased the tips of the leaves will turn brown and become so unsightly that they have to be clipped off. Clipping results in temporary improvement only. Very soon the tissue of the leaf will turn brown at its extremity, as it did in the first place, and a second clipping will be necessary. After about a third clipping the leaf will have lost its beauty and your plant will cease to be an

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ornament to hall or parlor, for all the leaves on it will most likely be similarly affected. But if at the beginning you see that your plant has proper drainage, all this may be avoided. Put from an inch and a half to two inches of broken pottery into each pot before filling it with soil. This will prevent the soil from washing down and closing the crevices in the drainage material and allow all surplus water to run off at the bottom of the pot. Never neglect to do this. The welfare of your plant depends on it to a great degree.

Many persons keep the pot containing their Palm in *jardinières*. If the pot rests on the bottom of the *jardinière*, the water that runs through at watering-time collects there, and unless it is emptied frequently it soon gets to be two, three, or four inches deep, and your plant is obliged to stand with its feet in the mud. No matter how good drainage you may have provided for it, if this condition of affairs is allowed to exist, disaster is sure to follow. Always put a brick or something similar in the bottom of your *jardinière* for the pot to stand on. And be careful to see that whatever water collects there is poured out before it gets to the top of the brick.

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Many persons keep their Palms standing in corners of the room for days at a time, or in other places some distance from the light. If this is done, souring of the soil is pretty sure to result, because absence of good light interferes with evaporation. If you would use Palms for decorative purposes away from the window, have two or three of them and let them take turns doing decorative duty. Change them so often that they are never away from the light for more than two days at a time.

This leads up to the subject of exposure. Some persons will tell you never to let the sunshine touch your Palm. Others will tell you to keep it always in shade, the more the better. The fact is, sunshine is not necessary to the welfare of the Palm, but morning sunshine will not harm it in the least, and good light it must have in reasonable quantity if you expect it to have a good color. Strong shade is not desirable. The shade that suits the Palm might be defined as simply the absence of sunshine. Palms do well in east windows, but in south ones they should be kept back from the glass, for the heat on a sunny winter's day will be too strong for them.

How often shall we water the Palms? That

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is not an easy question to answer, because conditions vary so much. Here, as in other departments of plant-culture, I would advise an adherence to the only rule which has, so far, been found safe to follow: When the surface of the soil looks dry, water, and give enough to thoroughly saturate all the soil in the pot; then wait until the soil looks dry again before giving more. There can be no definite time named, for at some seasons of the year evaporation is rapid, at other times slow. The condition of the plant will have a good deal to do with watering. If growing, it will need a good deal more water than if dormant. The owner of the plant must study it, and thus enable herself to do the right thing for it at the right time and in the right way. It is an easy thing to lay down a set of general rules, but every plant-grower will find that these rules must be constantly modified to fit conditions, and that conditions vary so much that each person must be governed by a nice sense of discrimination and good judgment. Good judgment can only come from a knowledge of the requirements of the plant you cultivate and a familiarity with the results which follow the doing of this or that thing. In brief, the suc-

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cessful cultivator of plants must keep her eyes open, and study her plants as she does her children.

Palms should be showered at least once a week. It is a good plan to take them into the bathroom, lay them down on their side, and spray them so thoroughly that every portion is washed as clean as it would be if they were exposed to a summer shower. This keeps the dust from accumulating on them to close the pores of the leaves, thus interfering with their breathing as well as making them unsightly. It also keeps the red spider down. This little insect is that little that it hardly seems possible that he could do much harm, but he is more destructive than all other insects combined. He delights in the hot, dry atmosphere which characterizes the modern living-room. Moisture he does not like, hence the value of the shower-bath in waging warfare against him. Always keep water evaporating in the room. Use the hand-atomizer on your plants daily. Depend entirely upon moisture in fighting this pest. Tobacco teas and insecticides of all kinds are useless except in so far as they impart the moisture, which is more satisfactory if obtained from clear water. If it is not conven-

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ient to shower your plants, dip them in tubs of water.

Sometimes scale, mealy-bug, and aphids attack the Palm. Scale is a flat insect which attaches itself to the leaf and sucks out the juices of the plant. Mealy-bug is a white, cottony looking creature which establishes itself in the rough places of the stalk. Aphides every plant-grower is so familiar with that no description will be needed. Either one of the three will do great injury to a plant, and if they all work together, they will soon kill it. There are many insecticides on the market, but none of them is as effective as a solution of the ordinary ivory soap used in the household. Shave up about two ounces of it, melt it, and add it to a pailful of water, and wash your plants with it. Such a remedy costs next to nothing, is always at hand or easily obtainable, is perfectly safe, and has the merit of being pleasant to use, which is something that cannot be said of the ordinary insecticide.



SOME persons fail with Palms because they selected varieties not adapted to house-culture. I have found that the Kentias, Fos-



ARECA LUTESCENS

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teriana and Belmoreana, give the best satisfaction because of their sturdy, vigorous habit and the ease with which they adapt themselves to living-room conditions. They are of stately, upright growth, with long, frond-like leaves which arch gracefully. *Phoenix reclinata* is of more spreading habit and is perhaps the most rapid grower and the hardiest of all varieties desirable for house-use. *Latonia Borbonica*—the Fan Palm—has large, almost circular, leaves and does not grow to any great height. *Areca lutescens* is of more delicate character than either of the Kentias, but resembles them closely in other respects. If those who have an ambition to grow the Palm, and grow it well, would confine their selection to these five varieties, success would more frequently crown their efforts. When they have learned how to grow these, they may safely undertake the cultivation of more exacting varieties. If properly cared for, a Palm ought to increase in beauty for years, or, in fact, until it becomes too large for living-room use. It will do this if given proper treatment.

In case worms are found in the soil I would advise the immediate application of lime-water. Prepare this by putting a piece of perfectly

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fresh lime as large as an ordinary coffee-cup in a pail of water. It will soon dissolve. Pour off the clear water and apply this to your plants, using enough to wet all the soil in the pot. A smaller quantity would be of no benefit. Many persons fear to use lime-water liberally, as they have an impression that it may injure their plants. Such is not the case, however. Water can hold only a certain amount of the active properties of lime in suspension, and this amount is never enough to injure the most delicate plant, except such varieties as are averse to lime in the soil. Ordinary plants receive considerable benefit from its use as a plant-food. That it will kill worms I know from repeated trials, but one application may not be sufficient to do this. If any are found after the first trial, give another application, and repeat the process until no worms are to be found. Worms do great harm because they attack the tender roots, thus bringing about a diseased condition which greatly weakens the plant and lays the foundation of chronic ill-health, which, in time, will most likely result in death. If they do not kill the plant, they spoil its appearance, and a dead plant is better than a disfigured one. If the leaves of your

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Palm begin to turn yellow or die at the tips, and you know drainage to be good, you will be warranted in suspecting the cause of trouble to be worms. If you turn the plant out of its pot, you will most likely find tiny white ones clinging to the younger roots in large numbers. The fish or angle-worm is not as harmful as the small white one. Be prompt in the application of your remedy, and do not be satisfied until you have routed the enemy.

If concentrated fertilizers, like bonemeal, are used, it will not be necessary to repot Palms yearly. Keep the soil rich by feeding it liberally, and thus avoid that disturbance of the roots which always acts as a temporary check upon the development of the plant. Development should go steadily ahead and never be interrupted if possible to avoid it.

I have spoken of the application of oil to the foliage. Many persons advise it because it gives a glossiness to the leaf which is quite pleasing at first. But in a short time, if its use is continued, the leaf will take on a sickly color, and soon you will have to remove it. Oil closes the pores of the leaf and prevents it from breathing, and it also retains dust, which cannot be removed by an ordinary showering be-

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cause the oil repels water. If you want the foliage of your Palms to look bright and fresh, put three or four spoonfuls of milk in a basin of water and wash the plant with this infusion. Go over them leaf by leaf, using a sponge or a soft cloth to apply the liquid.

I frequently receive letters from the owners of Palms who tell me that their plants elevate themselves above the soil, making stilts of their roots. Some write me that they have repotted their plants repeatedly, using deeper pots, and sinking the plant so that its base touches the soil, but in a short time it is up in the air again. Do not worry over this condition of things. It is the nature of the plant to grow in that way. No harm comes from the exposure of the upper part of the roots, and great injury may be done by putting the base of the plant in contact with the soil. I have known decay to set in, in many instances, because of it.

How large pots shall we use? That depends on the age of the plant to a considerable extent. If three or four years old and of vigorous development, a twelve-inch pot may be required, but up to that age I would not advise pots more than eight or ten inches across. If concentrated fertilizers are used, the plant

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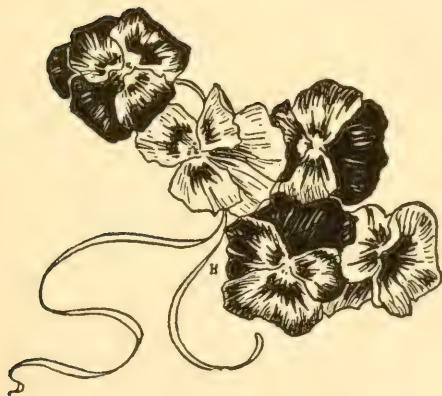
grown in a pot of these sizes will remain in perfect health. An examination of its roots will frequently show that they fill the pot so entirely that you wonder what has become of the soil. They seem to have absorbed it all, and yet they will have that clean, white look which proves them to be in a perfectly healthy condition, and the growth of the plant will be all that one could desire. Large pots are not needed when you feed your plants on food containing the elements of plant growth in condensed form.

Many of the points upon which I have touched in this paper may seem unimportant to the amateur, but let me assure him that success can only be secured by following the advice given. Bear in mind the fact that success in plant-culture depends largely on the little things. I have advised nothing that has not a good reason back of it—nothing that years of personal experience in Palm-growing has not shown me to be essential to success.

DECORATIVE PLANTS

Love lies bleeding in the bed whereover
Roses lean with smiling mouths or pleading:
Earth lies laughing where the sun's dart clove her:
Love lies bleeding.

SWINBURNE: Love Lies Bleeding.



Like two cathedral towers these stately pines
Uplift their fretted summits tipped with cones;
The arch beneath them is not built with stones,
Not Art but Nature traced these lovely lines,
And carved this graceful arabesque of vines;
No organ but the wind here sighs and moans,
No sepulchre conceals a martyr's bones,
No marble bishop on his tomb reclines.
Enter ! the pavement, carpeted with leaves,
Gives back a softened echo to thy tread !
Listen ! the choir is singing; all the birds,
In leafy galleries beneath the eaves,
Are singing ! listen, ere the sound be fled,
And learn there may be worship without words.

LONGFELLOW: My Cathedral.

DECORATIVE PLANTS



PERHAPS the most popular of ornamental-foliaged plants for several years past has been the Boston Fern, a "sport" from the well-known *Nephrolepis exaltata*, better known as the Sword Fern.

This plant is too well known to need description here. It is seen everywhere. When well grown it is a most beautiful plant, but as ordinarily grown it fails to do itself justice because conditions are against it. It is one of the easiest of all plants to grow well if its requirements are understood and met. It must have a light, spongy soil in order to do its best, and be given plenty of root room. A year-old plant ought to have at least a ten-inch pot to accommodate properly its many strong roots. A good soil for it is made by mixing ordinary garden loam with fibrous matter secured by turning over old sward and scraping away that portion immediately below the grass-tops. This will be full of fine

roots, which will furnish the vegetable matter all Ferns delight in. It is an excellent substitute for leafmold, which is the ideal soil for most Ferns, but which those who live in cities and villages find it extremely difficult to procure without making special trips to the country in search of it. Mix this with equal parts of garden loam, and add to it enough sharp, coarse sand to make the entire mass so friable that when some of it is squeezed firmly in the hand it will readily fall apart when pressure is relaxed. In such a soil any Fern will grow well, provided other conditions are favorable.

The Boston Fern is propagated by runners, which are sent out from old plants and take root wherever a joint comes in contact with soil, or by division of the old plants. I prefer the latter method, because it gives one a larger plant in a given length of time. If you have an old plant and desire to increase your stock from it, take a sharp, thin-bladed knife and cut down between the divisions of the crown in such a manner that each will have some roots attached. Put these pieces in four- or five-inch pots and leave them there until they have filled the soil with roots. Then shift to seven-

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or eight-inch pots and later on to ten-inch ones, thus making two shifts during the year. Keep the plants out of the sun at all times and be careful to see that the soil never gets dry. This is very important. If a Fern suffers from lack of moisture at its roots, it receives a check from which it will be months in recovering. Indeed, I would throw such a plant away and begin with a new one, feeling sure that the latter would be much the finest plant by fall if given proper care. The careful amateur will see that her plants are given such attention as will keep them going steadily ahead. No check will ever result from her neglect of them. When properly cared for a Boston Fern ought to have from thirty to sixty fronds when a year old, each frond four or five feet long, with dozens more showing at the centre of the plant. Such a specimen will be a veritable fountain of foliage. One will be sufficient to fill a large window, where it will be most effective if kept by itself. Other plants do not combine well with it. For use on brackets it is most charming because of its gracefully drooping habit.

Lately two new Ferns have been put upon the market, both "sports" from the Boston

variety. *Nephrolepis Piersonii* has the leaflets of the frond divided in such a manner that each becomes a miniature frond. These give the plant a heavy, rich foliage which is extremely beautiful. The fronds are shorter than those of the parent variety and of more upright habit. *N. Fosteriana* has the same division of pinnae, but its leaflets are narrow and long, instead of short and wide, like those of *N. Piersonii*. This peculiarity gives it an extremely light and dainty effect, and especially so because its fronds are long and drooping. Both are beautiful. Which is most so it would be impossible to say, because tastes differ. See either of them, and you will be sure to want them. Give them the same treatment advised for the Boston Fern.

Begonias have heretofore been considered better adapted to window-garden culture than as plants for general decoration, but the introduction of several new varieties has enlarged our list of desirable ornamental plants and gives us some strikingly beautiful ones. One of the best of these is *Manicata aurea variegata*. It has large, thick foliage, heavily blotched and splashed with pale yellow on a dark-green ground. No two leaves on a large



SHOWY SPECIMEN OF NEPHROLEPIS PIERSONII

PLANTS

specimen will show the same variegation. The underside of the foliage and the leaf-stalks have little, fringed bracts of dark red at intervals, which add much to the beauty of the plant. The habit of growth is peculiar. Gnarled, twisted stems are sent out which curl about the pot and droop over it, but never take on an upright habit. In order to secure most satisfactory results from it, it should be grown on a stand, which will allow its fantastic growth to droop to suit itself, as it cannot when kept on a shelf or the window-sill. It is a profuse bloomer. Its flowers are produced in great panicles, on long stalks thrown well above the foliage. They are small, but there are so many of them that they are extremely ornamental. Their silvery tints, delicately suffused with flesh-color, afford a charming contrast to the dark green and creamy variegation of the abundant foliage. This plant is easily grown from cuttings.

Another most lovely *Begonia* is *picta aurea*. This is of upright habit. Its leaves are large, long, and pointed. They have a ground-color of dark olive irregularly blotched with clear yellow. It is impossible to give a verbal description of the plant that will do it anything

like justice. It must be seen before one can gain any adequate idea of its wonderful beauty. It is far more ornamental than Begonia of the Rex class, because its colors are richer and more striking and its habit of growth is superior for general effect. And—this will recommend it to the amateur who likes fine plants, but does not like to have them too exacting in their demands on his time and attention—it is of extremely easy culture. In fact, I have never grown any kind of Begonia that required less care. Give it a soil similar to that advised for the Ferns I have spoken of, keep it *moist* at the roots, but never *wet*, and see that it has good light, but not strong sunshine, and anyone can succeed with it. Both of the Begonias described have smooth foliage, therefore they can be showered with perfect safety and be greatly benefited by it. The only Begonias injured by the application of water to their leaves are those having soft-textured and hairy foliage.

Araucaria excelsa is not a new plant in one sense of the word, and in another it is. It has long been grown in greenhouses, but the impression has prevailed that it was not adapted to living-room culture. But of late years it

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has proved to be one of the best plants we have for that purpose. It is generally known as Norfolk Island Pine. It has an evergreen foliage which resembles to some extent that of our native Hemlock and that of the Balsam, and yet it is quite unlike either. The leaves, or "needles," with which its branches are thickly set are short and extremely plentiful and surround the stalk. They are a very dark green color. The branches are produced in whorls. Each whorl, as a general thing, has five branches, but occasionally there will be seven or eight; I have never seen more. When the whorl is five-branched you see a perfect, five-pointed green star as you look down upon the plant. The branches are very regular and symmetrical in development. None of them ever outgrows the others, therefore symmetry characterizes the plant in all stages of its growth. A young plant is a perfect tree in miniature, and a plant eight or ten feet tall is equally as perfect in shape. Because of its star-shaped whorls of branches it has been given the name of Star Pine by some, while other dealers advertise it as the Christmas-tree Pine. Large plants make excellent substitutes for the ordinary Christmas-tree in the

home. Small plants are fine for table decoration. There is another variety in the market—*A. compacta*—of dwarfer habit than *A. excelsa*, and better adapted for window-culture. To grow this plant well give it a soil of rich, sandy loam. Shift from time to time as the roots fill the old pot. Water moderately. Shower frequently to make sure that the red spider—that worst enemy of all plants kept in the dry, overheated atmosphere of the living-room—does not get a foothold on it. As a general thing this is the only insect that ever attacks it, but occasionally the aphids will be found on the tender growth. The remedy in such a case is sulpho-tobacco soap infusion, applied with a sprayer. After the plant is in a very large pot feed it by the application of good fertilizers rather than by repotting it in fresh soil. A plant two or three years old ought to have from ten to twelve whorls of branches and be from seven to eight feet tall. When it gets too large for the room you can easily trade it to the florist for smaller plants. He will be delighted to make the exchange, as large specimens are always in demand for decoration on such occasions as balls and other parties. The stately effect of a well-grown

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plant in the hall or parlor cannot be equalled by any Palm. Being so unlike all other decorative plants, it is sure to attract attention, and it never fails to win the admiration of every lover of the beautiful in plant-life. Until within the last year or two small plants were quite expensive, but since the demand for them has increased the florists have enlarged their stock, and nowadays the price is very reasonable.



THE Ficus, or Rubber Plant, is popular for two reasons: It has large and striking foliage, quite unlike that of ordinary plants, and it is easily grown. Naturally this commends it to the attention of the amateur. A well-grown specimen with large, healthy foliage all along its stalk is ornamental, but the plant as ordinarily grown is more often unsatisfactory than otherwise. Its foliage will be sparse and frequently discolored, and the chief characteristic of the plant will be naked branches. But the owner keeps it from year to year, hoping for improvement, which is never likely to take place. The only really satisfactory Ficus is

the plant which has never been allowed to stop growing. If it once stands still, it is almost impossible for the amateur to coax it into growth again—that is, satisfactory growth. It may put forth a few leaves now and then, but they are likely to be small ones, utterly unlike the large, rich foliage which constitutes the chief charm of the plant when properly grown. Give it a rich soil, a good-sized pot, a moderate amount of water, and plenty of sunshine, and it will make luxuriant development. See that all these conditions are kept up, and your plant will go steadily ahead and get finer and finer as it increases in size, but allow the soil to become exhausted or the roots to be badly cramped for room, and straightway it will refuse to grow, and this means, nine times out of ten, the end of its usefulness. About all that can be done with it after that is to trade it to the florist, who can give such treatment in his greenhouse as you cannot in the living-room. There he may be able to coax it into renewed growth and get some returns from it in the way of cuttings from which to grow young plants.

The Ficus, as a general thing, does not branch freely. Most of the plants we see have

A FLOURISHING ADIANTUM



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no branches. There is simply the one straight stalk. If the lower leaves have fallen, the plant is unsightly unless kept among others which hide its nakedness. A branching plant is always preferable, as it is likely to have more leaves than the branchless one and does not attain the height of the latter. Such a plant your florist will furnish for you if you ask him to. But if you simply order a *Ficus*, quite likely you will get one on which no signs of branches are to be seen, and it will keep going up, up, up, in a straight stalk, until it gets to the top of the window. Then it will be too late to cut away its top, hoping to encourage by so doing the production of branches below. To grow any plant into a fine specimen you must take it in hand when small and *keep it in hand* as it develops until it is what you want it to be. Most plants are tractable and can be made to do what we would have them if we exercise patience and perseverance in the training of them. Spasmodic attention is not what is needed. We must give them daily care and they must be constantly under control.

The ordinary *Ficus* has plain green foliage. *F. elastica variegata* has leaves broadly and irregularly marked with white and pale green

along their edges. This variety, however, lacks the robust qualities which characterize the variety in general cultivation, and though it is very attractive when well grown, it generally fails to give complete satisfaction. Therefore do not allow yourself to be cajoled into buying it by the elaborate descriptions given in the catalogues under the impression that you are going to get something that will give you a great deal more pleasure than the more common sort.

Those who complain of the difficulty of growing fine plants in the hall ought to experiment with the Queen Victoria Agave. I know of but one other plant that will do as well as this one with little care, and that is the *Aspidistra*, which I shall presently speak of. This Agave has long, thick, succulent foliage, of a pale green regularly bordered with creamy yellow. The old leaves are very persistent, and a two- or three-year-old plant will often have as many as twenty or thirty of them two to three feet in length, all sent out from a common centre. The ornamental effect of such a plant cannot be imagined in any satisfactory degree; it must be seen to be understood. For halls where there is not a great deal of direct light

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I know of no plant better than this. It stands all kinds of neglect and hard usage. Because of its succulent nature it is not readily injured by lack of moisture at the roots. Having a thick, tough skin, it is not susceptible to injury from insects, and dry air and dust seemingly have no effect on it. Its peculiar foliage has a suggestion of the tropics in it, and on this account it will appeal to many. For some reason it has never been much grown, but I am confident that it would soon become a very popular plant if its merits were better understood.

I have referred to the *Aspidistra* as a Mark Tapley among plants. If anything in the plant line can "come out strong" under difficulties, it is this. I have seen specimens of it which had not been repotted for years, and had not had an application of fertilizer more than two or three times in their lives. They had been allowed to get dry repeatedly. They had seen the thermometer run from one hundred above zero to dangerously near the freezing-point, and for weeks at a time they had stood in a shady corner ten feet away from any direct light. And yet these plants looked well and were thickly set with foliage of good color;

in a word, they were still ornamental. But I would not have the reader get the idea from what I have said that the *Aspidistra* is a plant that does not appreciate good treatment. The better you care for it, the more satisfactory it will be. It pays to be kind to it. Give it a rich soil, a regular supply of water, and fairly good light, and it will produce a great quantity of rich, luxuriant foliage of glossy, dark green if you have the plain-leaved kind, or green beautifully striped with white and yellow if you have the variety sold under the name of *A. lurida variegata*. This foliage is sent up directly from the soil. The plant has no branches, therefore does not attain a height of more than two feet and a half under favorable conditions. Its foliage resembles that of the *Convallaria*, or Lily of the Valley, in shape, but is several times larger. A strong plant will often have fifty leaves. If an old plant fills its pot with roots and you do not care to give it a larger one, you can keep it in fine condition for an indefinite period by an occasional application of bonemeal or some good liquid food. Should you care to increase your stock of plants, turn the old one out of its pot and break it apart in such a manner that each bit

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of crown will have a few roots attached. Plant these in good, fresh soil, or the open ground, and soon you will have vigorous young plants which will not be at their best in a decorative sense until about a year old. The *Aspidistra* is a favorite for decorative purposes because its low habit of growth brings the foliage-effect down to the floor and hides the unsightliness of pots containing tall-growing plants placed back of it.

Pandanus utilis—the Screw Pine—is a good plant for living-room culture if care is taken to prevent water from collecting in the centre of it. If this occurs, decay soon sets in, and in a short time your plant will die. Great care should be taken to have the drainage of the pot perfect. Water moderately. Keep the foliage free from dust by frequent showering. Lay the plant flat on the floor, when this is done, to make sure that water does not run down the leaves to the heart of it. A new variety has lately been introduced under the name of *P. Veitchii*. This has beautifully striped foliage of green and white. A fine specimen shows to superb effect when given a place on a stand in a large window, where it can display its charms without the interference of other plants. The

Screw Pines are very interesting because of their peculiar habits of growth. Their foliage is sent up in spiral form, hence the name. Each leaf has sharp teeth along its edges. These point towards the tip of the leaf. You can draw your hand *up* the leaf with perfect impunity, but attempt to draw your hand down it and you will find yourself impaled by scores of needle-like points. Never subject the Pandanus to a low temperature and do not keep it far from the light.

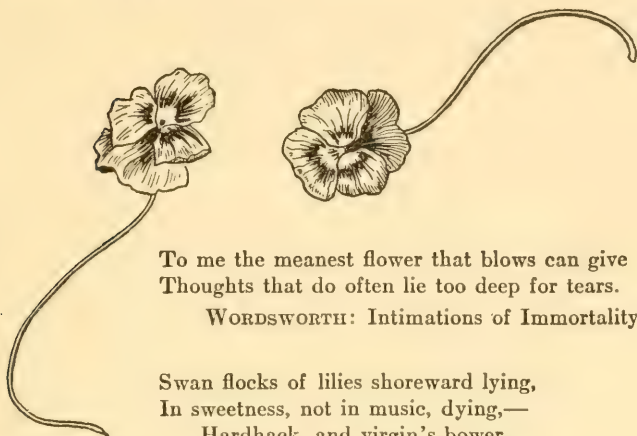
Some of the Dracenas are easily grown in the living-room. *D. indivisa* has long, narrow foliage, so freely produced and so graceful in its arrangement that it well deserves the popular name of "Fountain Plant." *D. regina* has broad, curving leaves of dark green edged with pure white, thick and leathery in texture. The plant is compact and strong-growing. The foliage is thickly set along its stalk, making it extremely ornamental. To grow Dracenas well, give them a light, spongy soil, well drained, and never over-watered. Keep the foliage clean by frequent showerings. If aphides attack it, wash with an infusion of sulpho-tobacco soap.

Do not get the impression that any of the

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plants I have made mention of are robust enough to get along without some attention. True, the Agave and Aspidistra require but very little care, but they cannot be expected to give satisfaction when entirely neglected. They respond readily to kind treatment, and will be so much finer in every way where it is given that you will be glad to give it when once you understand the results of it. I would advise giving each plant a chance at the window at least once a week, and I would never put any of them in shady corners and keep them there. If kept at a distance from the light, for long at a time, they will suffer by it. Evaporation takes place slowly in the shade, and the undue retention of moisture is likely to result in souring of the soil. And a sour soil almost always brings on a diseased condition of the roots which speedily results in the death of the plant in it.

THE USE OF GROWING PLANTS FOR TABLE DECORATION



To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears.

WORDSWORTH: *Intimations of Immortality.*

Swan flocks of lilies shoreward lying,
In sweetness, not in music, dying,—
Hardhack, and virgin's-bower,
And white-spiked clethra-flower.

WHITTIER: *The Maids of Attitash.*



At the head of Flora's dance;
Simple Snow-drop, then in thee
All thy sister-train I see;
Every brilliant bud that blows,
From the blue-bell to the rose;
All the beauties that appear,
On the bosom of the Year,
All that wreath the locks of Spring,
Summer's ardent breath perfume,
Or on the lap of Autumn bloom,
All to thee their tribute bring.

MONTGOMERY: The Snow-Drop.

THE USE OF GROWING PLANTS FOR TABLE DECORATION :: ::



ANY a woman would beautify her table with flowers daily if she could afford to do so; but at some seasons of the year the price of even quite ordinary flowers is prohibitive among a large class of people, and really choice flowers are out of the question altogether. This being the case, the use of flowers is confined to "extra occasions."

I would suggest to the woman who takes a housewifely pride in making the table as attractive as possible for her own family, as well as the frequent guest, that growing plants can be used in the place of flowers with most satisfactory results, provided they are kept in good condition. Most homes, nowadays, have plants in the window, and here she can secure stock for table decoration. With fine plants to depend on, instead of cut flowers purchased from

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the florist, the table can always have about it the charm of "green things growing."

One of the very best plants for this purpose is the variety of *Asparagus* catalogued as *A. plumosus nanus*. If the ends of its new shoots are nipped off before the side branches are developed, they form a broad frond which spreads out from the centre of the plant, arching gracefully over the pot, so that a plant becomes a symmetrical mass of filmy green that has a cool, airy grace that makes it as delightful to look at as a wildwood Fern. Indeed, it is better adapted to table decoration than most Ferns obtained from the florist, because of its light, feathery character. It imparts the decorative effect aimed at without hiding anything. A table set with fine china whose only decoration is a touch of gold and cut glass that sparkles against a background of immaculate napery, with the filmy fronds of this plant showing like a green mist above all, is wonderfully attractive in its chaste, pure daintiness. If a touch of bright color is desired, a very few flowers thrust among the fronds of the plant will give charming results, and the general effect, from the artistic stand-point, will be

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vastly more satisfactory to the woman of discriminating taste than a great mass of costly flowers. Plants quite large enough for ordinary decorative purposes can be grown in six-inch pots. Larger plants, which can be made good use of on more elaborate occasions, when the table is extended to its fullest capacity, can be grown in eight- and nine-inch pots, or two or three smaller plants can be grouped in such a manner as to give the effect of a large one.

To grow the plant well, give it a soil that is light and rich. Water it moderately. Aim to keep the soil *moist*, but never *wet*. If too much water is used, the foliage of the plant often turns yellow and droops. Give it a place in the window where the full sunshine cannot get at it. Shower or spray it at least twice a week, or, what is better, dip it in a tub of water. If this is done, no part of the plant escapes a thorough wetting. We do this to prevent injury from the red spider, which delights in a dry atmosphere. If something of the kind is not done, this enemy will often ruin a plant in a short time. This *Asparagus* is one of the most satisfactory of ornamental plants for the window, therefore the woman who grows it

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“kills two birds with one stone”—she beautifies the window and her table at the same time. Care must be taken to get the *plumosus nanus* variety. There is another variety often worked off on the unsuspecting amateur as equally desirable. This is *A. tenuissimus*. It is a pretty plant, but it is a vine, therefore it lacks the upright, spreading habit which admirably fits *plumosus nanus* for table use.



ANOTHER fine decorative plant that is not at all common is *Begonia aurea variegata*. While small, this *Begonia* has large foliage, shaped something like that of the *Rex* section, very heavy and thick in texture, of a dark-green, glossy ground, blotched and marbled irregularly with creamy white, deepening to soft yellow, often with streaks and dashes of rose blending into the other colors most charmingly. Young plants have a large quantity of foliage which almost entirely hides the pot, but older plants lose most of their early leaves and exert their energies in the development of gnarled and twisted stems which unfit them for table use. This is a plant that comes out well under artificial light. It needs no flowers to



DWARF AZALEA

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heighten its beauty, as its yellow variegation is sufficiently ornamental in itself. To grow it well, give it a soil of sandy loam. Water moderately, and give it a place in the window where it will get plenty of light without exposure to strong sunshine.

Another Begonia that is sure to find favor with the woman who takes pride in the appearance of her table is Gloire de Lorraine. This variety seldom outgrows the size most effective in table decoration. It is wonderfully floriferous—indeed, a plant is literally covered with flowers from January to March. Its blossoms, which are borne in loose, spreading panicles that droop beneath their own weight, are of a soft, rich rose-color that lights up as finely as a Daybreak Carnation or an Ada Spaulding Chrysanthemum. Fine as their color seems by day, it comes out much more richly under artificial light. This is a feature which will make this Begonia a general favorite for use on the table, as many pink flowers seem dull and flat in tone at evening. This plant always grows in symmetrical shape if its slender branches are given proper support. Young, strong plants which will soon come into bloom can be bought of most florists during the fall

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months. It is advisable to let the florists grow them on to flowering size, as they are somewhat exacting in their requirements during the early stages of their growth, and as yet we do not understand these requirements well enough to give the treatment they get from the florist. It is well to invest in three or four plants, so that one will not have to do table duty too long at a time.

The Baby Primrose is a lovely little plant that gives to the table precisely that charm which wildwood flowers generally have a monopoly of. It is not showy in one sense of the word,—that is, it is lacking in brilliant coloring,—but it is showy in the sense that it is beautiful. Its flowers are a soft, rosy-lilac, with a greenish-yellow eye. They are small individually, but there are so many of them on each healthy plant that the effect is very good. They are produced on long, slender stalks, thrown well above the foliage, which is in a thick mass at the surface of the soil. The flowers are borne in whorls, two or three to a stalk. This plant is of remarkably easy culture. Give it a light, fibrous soil and a good deal of water and you will have not the least trouble with it. Anyone who has a fondness

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for Hepaticas and Spring Beauties and other woodland flowers will get a great deal of pleasure out of this modest, beautiful, lovable little plant. It can be bought in flowering size from all florists during the fall months.

The Madame Salleroi Geranium is a standby among easily grown plants for daily decorative purposes. Its habit is quite unlike that of the ordinary Geranium, which is almost invariably a scraggly, awkward plant unless carefully trained. It never puts forth long branches. Branches a-many it has, but they are all short ones, and in a thick mass at the base of the plant. Most of its energies seem to be expended in the production of leaves. Each branch is thickly furnished with them. They are of a pale green, bordered with creamy white. There is so much foliage to a healthy plant that you see nothing but a rounded mass of it. It furnishes a charming background for pink Carnations or Roses if you see fit to use a few in connection with it. Simply thrust their stems into the soil from which the plant grows, and you have a combination that will always challenge admiration. The ordinary Geranium is considered one of the very easiest of all plants to grow well, but this variety is of much

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easier culture. Indeed, I know of no other plant that requires so little attention. It will take care of itself if you give it water enough to keep the soil about its roots moist all the time. A plant in a six-inch pot will often have as many as two hundred leaves on it. From this some idea can be gained of its decorative capabilities. No one need be without material for the decoration of the table at any and all times who has half a dozen of these Geraniums. And they will add quite as much to the beauty of the window as to that of the table. They thus answer a double purpose most effectively.



SMALL plants of *Dracena* and *Pandanus* are fine for table use. Especially the variety of *Pandanus* catalogued as *P. Veitchii*. This has a white stripe running the entire length of each leaf. The leaves are long, slender, and gracefully arching, thus adapting it to the purpose admirably. But neither of these plants do their best in the window-garden, and I would only recommend them to the woman who has the advantages of the home greenhouse.

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Well-grown specimens of the Otaheite Orange in fruit are very pleasing table ornaments, and as the fruit hangs on for a long time, a plant can be used indefinitely. The Jerusalem Cherry, now so extensively sold at holiday-time, is another excellent plant for use on the table when well set with berries. So is *Ardisia crenulata*, with its thick, dark-green foliage and clusters of brilliant scarlet fruit. All three plants named in this paragraph are easily cared for by the amateur,—in fact, they require no special care,—and the money one puts into them is well invested if you want something to depend on for the ornamentation of the table during the greater part of the season. They will furnish an agreeable variety in connection with foliage plants, and will do effective duty in the window when not needed on the table.

This article would not be complete if it failed to make mention of the *Araucaria*, or Norfolk Island Pine. It is not a new plant by any means, but a plant which is just coming into a well-deserved popularity. It has not been grown much, heretofore, outside the green-houses, because the impression has prevailed that it was not adapted to general cul-

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ture. But we are beginning to find out that it is much easier to grow—and grow well—than any Palm, and before a great while it will be found in most collections. It resembles some of our native Spruces and Balsams more than any other plant I can compare it with, but this comparison fails to convey a good idea of its beauty. Its foliage is smaller and its general effect more airy and graceful than that of any of our native evergreens. It is very symmetrical in habit. Its branches are produced in successive whorls. There are generally five branches in each whorl. When this is the case each whorl forms a perfect star. Because of this the plant is sometimes called the Star Pine. But frequently there will be eight branches in a whorl. I do not recall ever seeing less than five or more than eight, and have no recollection of any instance where there were seven.

Young plants are fine for table decoration, especially at Christmas, as they can be made to serve as Christmas trees on a small scale, their branches being quite strong enough to sustain the weight of small gifts. Large plants can be pressed into use in the same capacity for gifts of larger size. This plant likes a soil of rich,

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sandy loam, such as our native Pine delights in. It requires considerable water when growing and a moderate amount when standing still. It also likes comparative shade and frequent showerings. Plants having four whorls of branches are quite large enough for ordinary table use. Such a plant will not outgrow its usefulness for a year or more. When it does, you can make good use of it in the decoration of hall or parlor.



OUR VILLAGE IMPROVEMENT SOCIETY

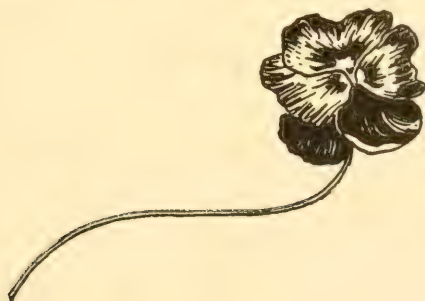


Yellow japanned buttercups and
star-disked dandelions,—just as we
see them lying in the grass, like
sparks that have leaped from the
kindling sun of Summer.

O. W. HOLMES: The Professor at the
Breakfast Table.

Violet! sweet violet!
Thine eyes are full of tears;
Are they wet
Even yet
With the thought of other years?

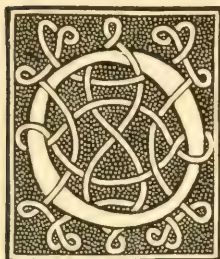
LOWELL: Song.



And yet she follows every turn
With spires of closely clustered bloom,
And all the wildness of the place,
The narrow pass, the rugged ways,
But give her larger room.
And near the unfrequented road,
By waysides scorched with barren heat,
In clouded pink or softer white
She holds the Summer's generous light,—
Our native meadow sweet !

DORA READ GOODALE: *Spiræa*.

OUR VILLAGE IMPROVEMENT SOCIETY



OUR village is pleasantly located. It has river frontage, and some very fine trees, and quite a number of attractive residences.

It also has a two-acre lot which had long been known as "the park," because it was public property. It was bought years ago, when the town had a "boom," as a site for a court-house. But a rival town got the court-house, the "boom" collapsed, and our "park" became the village cow-pasture.

Its fine elms made it a shady, pleasant place, and many of us saw great possibilities in it, if, as we used to say to each other, "the town ever improved any." But, like the rest of the village, *as* a village, the two-acre lot was so neglected that we took no pride in it, and the question of cutting it up for residence purposes finally came before the village Council.

It was this suggestion on the part of some

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members of the Council which gave birth to our Village Improvement Society, for, when the matter came up for serious consideration, one Councilman opposed the measure vigorously. In conversation with his friends, outside the Council-room, he had some severe things to say about our lack of public spirit, which he asserted had resulted in the general air of "gone-to-seedness" which characterized the place.

"Why," said he, "we might have one of the most charming little villages in this part of the country if we had more pride and interest in it. But we don't seem to have any. Every season I hear people from the city remarking about our shiftlessness and neglect of the place. 'It might be made delightful, if——' And that if of theirs is equal to a volume in its unspoken criticism on our lack of enterprise and improvement. In my opinion, it would be a shame to sell off the park. We may not need it now, but if we ever wake up and *do something* we'll see the mistake we made, but we'll find it out when it's too late to help matters, for there's no chance to get another piece of land like it. I wish I could stir up some enthusiasm among the people, and get

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them to go in for reform all along the line. I read of Village Improvement Societies in other places. One would be a good thing for us, I think."

"Why not have one, then?" suggested one of the group.

"Why not, indeed?" said another. "I'd be glad to join such a society and do what I could to help it along, and I think the rest of our neighbors would. We all see the need of improvement."

So it came about that in less than an hour the village improvement idea was enthusiastically received. It seemed as if it was just what everybody had been waiting for. A public meeting was decided on, and a notice was posted up, asking all who were interested in the improvement of the village to meet at one of the churches on Wednesday evening.

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WEDNESDAY evening came, and the church was filled with men and women. The man who had objected to selling off the park was made chairman of the meeting, and he briefly stated its object to the audience. Then two or three of the leading citizens spoke

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heartily in favor of the project and an informal discussion ensued. The result was that we had no difficulty in effecting an organization, and our Village Improvement Society came into existence with a membership of over fifty.

In discussing the method of management we decided to have everything about it as simple as possible, for some of us recognized the fact that success in undertakings of this nature is largely dependent on simplicity and directness. In order to avoid friction and "running expenses," it is wise to have but little machinery in a society of this kind, and that of the simplest character consistent with effectiveness. We dispensed with a formal and elaborate "constitution" and "code of by-laws," for we did not think either was needed. We simply drew up a paper setting forth the object of the society and the few rules we thought necessary to formulate for its operation, and when we had subscribed our names to it we were full-fledged, active members.

In this paper it was stated that membership was conditional on an agreement on our part to devote at least one day's work, spring and fall, to the improvement of the home grounds, and to give one day's work, spring and fall, to the

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improvement of public grounds and vacant places belonging to non-residents if called on to do so.

Each member pledged himself to the payment of one dollar semi-annually, the money thus secured to constitute a general fund to be drawn on in meeting the expenses attendant on the improvement of public places. We had but three officers, a president, secretary and treasurer. It was understood that the president was to have supervision of all work on public places, with the power of appointing such committees as might be deemed necessary whenever they were needed.

At first we had not proposed to take women into membership, but it was suggested that they had as much right in the society as men had, and would, no doubt, take as much interest in it,—and quite likely a good deal more. Accordingly it was unanimously voted to admit them.

Let me say, right here, for the benefit of those who may decide on having an Improvement Society, that in my opinion it will not be what it ought to be unless it admits women to membership. Let this be honorary membership, if thought best,—by that I mean exemp-

tion from the payment of dues and the performance of manual labor,—but by all means let women come into the society. Their opinions will be found valuable and helpful, and they will do much by their enthusiasm to encourage good work.

As was stated in the paper to which we subscribed our names, the work of improvement was to begin at home. We began it at once. It was surprising to note what a change was made in the general appearance of the place by one day's work about each home. It seemed incredible that so much could be accomplished in so short a time. We began to realize, then, as never before, the importance of concerted action.

Our first day's work was a valuable object-lesson to us. But many of our members were not satisfied with one day's work. They felt that entire satisfaction could only come from thoroughness, and accordingly they kept at it until everything about their places was in apple-pie order. Their efforts proved contagious. Those who were not members of the society caught the enthusiasm of improvement, and the good work went forward on every hand. It lasted long enough to enable us to



ARISTOLOCHIA POWERING A PORCH ENTRANCE

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accomplish really remarkable results,—not remarkable, perhaps, when individually considered, but quite so when looked at in the aggregate. Old lawns were renovated and new ones were made; trees, shrubs, and vines were planted and beds planned for flowers; old fences were mended and painted, some were removed; we cleaned away the rubbish which had accumulated everywhere because of the careless, slovenly habits we had fallen into;—in short, we did a hundred and one things which I need not make special mention of here, but which each member of a society for general improvement will find waiting to be done when an aggressive campaign is begun. In going about the village shortly after the era of reform had set in we were delighted at the evidences of neatness which met us on every hand, and we congratulated ourselves on what had already been effected by combined effort expended along the same line.



WE began public improvement at the church. The grounds about it were cleaned up thoroughly and some trees and vines set out; old hitching posts were removed and

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neat new ones provided; the sheds at the rear were reboarded and painted a quiet, neutral color. Then we went to work on the school grounds, and we did not leave them until they were as tidy in appearance as the grounds about our homes were. We set out a good many trees there, some of them evergreens, made provision for beds to be filled with flowers by the children, and arranged trellises of lathwork, to be covered with vines, as screens for the outbuildings.

Then "the park" was taken in hand. Thistles, Mulleins, Nettles, and other weeds of an aggressive character had taken full possession, and the cows which had been allowed to feed there had not interfered with them. These we cleared away and sowed the places where they had grown with lawn-grass seed. We built seats here and there under the trees and erected a rustic band-stand in the centre of the lot, about which we planted Ampelopsis and Bittersweet and wild Clematis. These vines have since grown to such size that they completely hide the wood of which the stand is built, and make it really "a thing of beauty" in summer. In some of the open places we set out native plants—Golden-rods and Asters. In others

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we planted perennial Phlox, Hollyhocks, and clumps of "Golden Glow" Rudbeckia. Here and there, where they would show to good advantage, we made groups of Hydrangea and wild Roses and the White-flowered Elder of the roadsides and fence-corners. In this way we secured considerable variety without the expenditure of a dollar, as all the cultivated plants we used were given us by those who had more than they had use for, and the native plants were to be had for the taking in the fields and pastures. The result of our work here was most gratifying. When we got through with "the park" it was something we were all proud of. We speak of it nowadays in a respectful and appreciative way, and we are justified in the pride we take in it, for it is a park that would be a credit to any village.

Every pleasant evening in the summer the young people congregate in it, and once or twice a week the band practises there, and we all turn out to listen to it and visit with our neighbors and congratulate ourselves on the new order of things. It is natural that we should feel a sort of partnership pride in what we have done, because it has been the outgrowth of coöperation.

OUR VILLAGE

Each summer affords us fresh proof of the wisdom of our undertaking. Visitors from the city compliment us on the spirit of progress visible on every hand. "It doesn't look like the same place," they tell us. "You have made a model village of it, so far as outside appearances go. Your sidewalks put our city pavements to shame because of their trustworthiness. Your homes show thrift. Your public places are kept in as tidy condition as your homes are, and that's something that can't be said of many villages. We like it here, and we're coming again." And they keep their word, and our village is becoming quite a summer resort. So we have found that what we have done with very little inconvenience to ourselves has proved a good advertisement for the place and its people, and the present prospect is that we shall get back many times the value of the labor and money expended in improvement, for several sales of property have been made at much better figures than prevailed before we began our work. The increase in the value of real estate is directly attributable to the improvements which have been made by our society.

What we have done others may do. We



PORCH POSTS WELL CLOTHED IN VINES

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have proved to our satisfaction that a large amount of money is not needed in an undertaking of this kind. Organized effort is the important thing. Of course, some money will be needed, but the sums coming in from dues will generally be found sufficient to meet all demands, unless improvements far more elaborate than ours are undertaken. If more is needed, it will be forthcoming, I am confident, for everyone will feel a personal interest and responsibility in the accomplishment of what has been undertaken, and they will not be willing to let failure result from lack of means to carry it forward to satisfactory completion.

In almost any village the young people could be enlisted in the work, and they could give entertainments for the benefit of the society and thus realize a good sum, since everybody would feel in duty bound to patronize them.

We have not been ambitious to make costly experiments. Instead, we have been satisfied to make the most of possibilities in a practical way. We have let competent men, having good taste and good judgment, plan the public work for us, and we have been sensible enough not to interfere with them or hamper them

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with unwise and uncalled-for suggestions which we have insisted on having adopted. Wherever and whenever this is done there will be friction. We have performed the work assigned us by those whom we have chosen to take the lead in an honest, hearty fashion, glad to do it, because we felt that it was of general as well as personal benefit. It has stimulated and strengthened our pride in the place we live in. It has made us feel, as never before, the mutuality of our interests.

But we are not so satisfied with what we have done that we feel content to fold our hands and rest on our laurels. We have other improvements in view. Our society seems to have become a permanent thing. One improvement naturally leads to another, and the work of a live Village Improvement Society like ours is a process of general evolution which may go on indefinitely.



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Clear and simple in white and gold,
Meadow blossom, of sunlit spaces,—
The field is full as it well can hold
And white with the drift of the ox-eye daisies !
DORA READ GOODALE: Daisies.



The ash her purple drops forgivingly
And sadly, breaking not the general hush;
The maple swamps glow like a sunset sea,
Each leaf a ripple with its separate flush;
All round the wood's edge creeps the skirting blaze
Of bushes low, as when, on cloudy days,
Ere the rain falls, the cautious farmer burns his brush.

LOWELL: An Indian Summer Reverie.

Ah, Sunflower, weary of time,
Who countest the steps of the sun;
Seeking after that sweet golden clime,
Where the traveller's journey is done;
Where the youth pined away with desire,
And the pale virgin shrouded in snow,
Arise from their graves, and aspire
Where my Sunflower wishes to go!

WILLIAM BLAKE: The Sunflower.

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INDIVIDUAL effort is the great factor of success in an undertaking of this kind. The man who begins the work of improvement by clearing away the rubbish from his back yard and doing something to make the home-grounds pleasant constitutes an improvement society of one, and what he does will be the object-lesson needed to prompt others to follow his example. The work of improvement must begin at the home. Any society which sets out to improve homes in general and neglects to do anything for the individual home is a failure from the start, because it overlooks the fact that general improvement can only result from individual effort brought to bear upon each home, instead of general effort expended on all homes. This is why improvement, like charity, should begin

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at home before it undertakes the broader work of the community.

It is the easiest thing in the world to get an improvement society started in almost any community if one earnest, enthusiastic person will take the matter in hand. This is especially the case at the present time, for enough of the work of such societies can be seen on all sides to convince any thoughtful person of the benefit growing out of them. It needs some one for a leader who is what we Westerners call a "hustler,"—a person who has the knack of organizing and directing individual effort in such a manner as to make it available and effective. If there is such a person in the community, and he—or she—has the amount of enthusiasm necessary to arouse public interest and create or stimulate a desire for beauty in everyday, practical life, there is no good reason why a local improvement society should not be organized in any community—there is nearly always need for it. Recognize this need fully, and bring it to the attention of others, then go to work at once in the formation of your society. Do not wait for next spring or next fall, but begin your work now, for there is always something that can be done, and there

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is no reason for deferring action to a special season or until such action may seem timely. All times, all seasons, are alike to such a society, whose work must go on during the entire year. Therefore get down to business as soon as possible, be the time spring or summer, fall or winter. If you cannot work to advantage, you can plan for work, and a good plan to follow always enables a society to dispose of its work to the greatest advantage when working-time comes.

Very much of the success of such a society depends upon individual effort as directed towards the improvement of the home grounds. Let one person fall to work in earnest in cleaning up and beautifying his place, and what he does will serve as an object-lesson to his neighbors and incite them to imitate his action. Enthusiasm is always contagious. Once get a community enthusiastically at work, either individually or as an organization, in the line of improvement, and success is assured, for enthusiasm will feed upon itself and grow as the work progresses. I have seen the proof of this in my own village, where an improvement society resulted from one man's attempt to beautify his home grounds. He accomplished

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so much in the right direction that others came to a realization of their own need and opportunity and followed his example. Soon they banded themselves together, and to-day they take intense pride and delight in carrying forward the good work.

The need of such a society in every community is apparent to anyone who will go about with his eyes open. He will see chances for improvement on every hand. He will soon discover them where he had not supposed they existed until he began to look for them. Observation will sharpen his vision in this respect, and he will soon come to the conclusion that the scope of an improvement society is a broad one, and one that enlarges as the work goes on.

It is not my intention to get down to definite details in this paper, which is more a plea for the formation of improvement societies than anything else, but I desire to call attention to some peculiar features of the work, and also to suggest some of the means and methods and materials which can be made use of in nearly all communities in the performance of it.

The average village lot is deficient in shrub-

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bery and trees, and what is true of the village lot is also true, to a considerable extent of the country home, therefore what I have to say will apply with equal force to both. Nothing improves the appearance of the home more than good trees and fine shrubs. Perhaps the majority of our houses are not specially attractive in themselves, but give them a setting of "green things growing," and the eye is at once attracted by it, the house ceases to be the overpoweringly prominent feature of the place. It is an easy matter to cover up a great deal of positive ugliness by a vine. It is just as easy to grow trees and shrubs in such a manner as to break up bare spaces and hide much that cannot be made beautiful in itself. Many a house cannot be remodelled into an attractive one, but the judicious use of vines upon its walls, and of trees and shrubs so planted as to relieve its angularities and lack of graceful lines, will make the place a pleasant one in spite of its drawbacks, because beauty is emphasized by making it prominent, and ugliness retreats to the background in proportion as beauty comes to the front. The eye is naturally attracted by the beauty of a tree or a shrub or a vine, and by using them liberally we draw

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attention away from less attractive things. It is one of the privileges of art to make its disposition of beauty so vivid and forceful that a study of it leads us to forget to look for unpleasant features. This is one of the truths which we need to bear in mind in our attempts to beautify the home.



TOO many of us fall into the mistake of thinking that beauty is necessarily expensive. It is not so. Beauty is cheap, in the sense that it is to be had for the taking. We need not go without beautiful trees and shrubs and vines because we lack money with which to buy them of the growers. The nurseryman has not the monopoly of all that is desirable in this respect. Go into the fields and forests,—and go with the seeing eye,—and you will find ample material for the ornamentation of the home grounds—material quite as desirable as that which the dealer offers you at a good, round price. So long as we can have native shrubs like the Clethra and the Elder and the Spirea, the wild Rose, the Dogwoods, and the Alders, and many others that I need not mention here, and such vines as the Celastrus, the

CRATAEGUS TRANSPLANTED FROM ITS WILD HABITAT AND SUBJECTED TO CULTIVATION



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Ampelopsis, and the Clematis, we need not lack for material with which to make home beautiful. It is waiting for you on every hand. Among our native trees we have some of the finest in the world, like the Elm and the hard and soft Maples. Where rapid development is desired, we can add the Box-elder to the list. Where the grounds are very small, we can make use of the Cut-leaved Birch or some of the Japanese Maples. All these are easy to grow, and will take care of themselves when once established.

Each home should have its lawn. Of course, it will be a small one on the ordinary village lot, but it serves its purpose by standing between the highway and the home like a symbol of the idea that private and domestic life is so aloof from the public that there is, or should be, a visible sign of separation between them. The development of the lawn is a sure indication that the improvement idea is working itself out in the right direction. Nothing can do more to make a village attractive than well-kept grounds about its homes, and no home can be considered as living up to its privileges as long as it is without its lawn. But do not make the mistake so common among us of

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scattering shrubs and flower-beds all over it. Let it be a green space of sward as broad as possible, with suggestions of restfulness about it, and these it cannot have if it is so broken up by shrubs and beds that all sense of breadth and dignity is destroyed. One good tree on the small lawn is enough, and if this is at the side, so much the better, for it enables us to have a larger unbroken space of sward between the house and the street. Keep all shrubs well to the sides of the lot, and have the beds of annuals pretty well to the rear. Never aim to make the home a show-place. Rather aim to make it a beautiful place, and rest assured that the charm of it will not be lost on the passer-by. Among the shrubs along the sides of the lot hardy flowers, like the Hollyhock, the Delphinium, the Peony, the Aster, the Perennial Phlox, and many others of stately habit and profusion of bloom, can be planted with fine effect. If the owners of adjoining lots can, in a sense, ignore boundary lines, and so arrange the shrubbery and border between them that it can be planted with an eye to unity of effect, charming results may be secured, and the lack of harmony which so frequently characterizes the two sides of the "line fence"

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can be entirely avoided. This is the only way in which general harmony of decorative planting can be secured in a block. So long as we shut ourselves up within the lines which separate us from our neighbors according to the "metes and bounds" of the surveyor, and work independently in the development of the home grounds, so long will our villages bear witness to lack of unity, and convict us of selfish narrowness in refusing to consider the interests of the community as superior to the interest of the individual. Let us work together and lose sight of the boundary-line in anticipation of the beauty which may result therefrom. The abolition of the line fence between village lots was a long step in the right direction. It should be followed by a union of work and plan in making the space between our homes so artistic in its effect that each owner can take pride in it, and feel that his interests are not confined wholly to his side of the lot. Here is where the truth of the old saying that in union there is strength can be forcibly illustrated in every community where houses stand near one another. Ask any landscape gardener what he thinks of this suggestion, and I am quite sure that he will tell you

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that there are great possibilities in the way of decorative planting where the two spaces are treated as one, but that by treating them independently much of the chance for good work is lost.

I have spoken of hardy plants in the decoration of the home grounds. Let me refer to them once more for the purpose of emphasizing my good opinion of their many merits. They are much to be preferred to annuals. They have a dignity not possessed by the latter. They are generally rich in color-effects. They are easily grown. They are good for an indefinite period if properly treated. Their value is becoming more fully understood each year, and the amateur gardener makes a serious mistake if he refuses to avail himself of their assistance in making the home grounds attractive. By a judicious selection of kinds it is possible to have flowers in the hardy border from May to October. A large collection of these plants will require less attention than a few small beds of annuals. But I would not be understood as trying to discourage the cultivation of the latter. They are all right—in their place, but that place is not on the grounds between the street and the dwelling.

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THE field of operation for local improvement societies is not confined to the home by any means. Public places, like the church, the school-house, and others of similar character, should receive attention. Let the aim be to make the entire village as attractive as the home, and do not relax your efforts until this has been done. Nothing adds more to the general attraction of a place than beautiful grounds about its places of greatest public importance.

One of the finest examples of this phase of improvement work is to be seen in the city of Menominee, Michigan, where the grounds about the Public Library, the great Manual Training-School, and the various ward school buildings are all treated with an artistic unity of purpose which is charming in results. And what adds to the value of this truly valuable object-lesson is the fact that native shrubs, trees, and plants have been made use of almost entirely in planting the grounds. It is well worth a long journey to this place to see what public spirit can do when directed by good taste.

If you organize an improvement society, be sure to include the women in it, and give

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them an opportunity to carry out some of their ideas. A woman has a keen eye for the beautiful, and her knowledge of color-combinations will be of great benefit in the arrangement of flowering plants. But her usefulness will not be confined to the æsthetic features of the undertaking. Women can be as practical as men are. In Green Bay, Wisconsin, certain lines of street work have been put into the hands of a committee of prominent women with most satisfactory results. They not only plan, and plan wisely, but they execute, and execute thoroughly.

It is a most excellent plan to interest the children in this work also. They will bring a great deal of enthusiasm to the performance of their share of it, and take pride in living up to the responsibilities placed upon them. It will be good training for them. Bear in mind this fact—that the greatest measure of success is almost always the result of the widest, heartiest coöperation. Get everybody interested, if possible, and keep them interested by giving them something to do. Make active members of everyone in the organization.

Social features should be made a part of the attraction of a local improvement society,

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especially in the winter. Have regular meetings at which papers are read on various phases of the work; discuss the spring campaign, and aim to draw everybody into the discussion; let music and literary exercises combine to give variety to these meetings; once in a while have a supper. In short, be sociable, and get acquainted with your neighbors, and let your improvement society be the bond of union which will develop friendliness and harmony in the community.

The financial benefits derived by any village or community from a local improvement society should not be overlooked. Let a town which has been "going down hill" for years, so far as its appearance is concerned, take upon itself the new life and enterprise which is the direct result of a hearty coöperation of its citizens in the work of general improvement, and it will surely realize a substantial financial benefit from it. The price of real estate will improve as much as the place does. If a man in search of a new home come into such a place, he will be much more likely to invest his money in it than in a town that has no such showing of public spirit. The spirit of improvement is in the air, and it gives

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a healthy tone which makes the stranger feel quite sure that the place must be a pleasant one to live in.

The object of this paper has been to show some of the benefits brought about by local improvement societies and the means by which they can be realized. I hope that what has been said will interest those who recognize the need of improvement in their respective communities and lead to the formation of societies, whose benefits will not be fully realized until they have worked that transformation which kindred societies have brought to many places I have had the pleasure of visiting. Our educational and reform societies are doing an unlimited amount of good, and the local improvement society is capable of doing equally useful work. The development of the communal interests of a neighborhood should go hand in hand with the training of its intellect. The local improvement society should teach the gospel of beauty and set good taste and orderliness in opposition to the degrading influence of neglect and indifference as to environment. It will surely make better men and women of us by so doing.

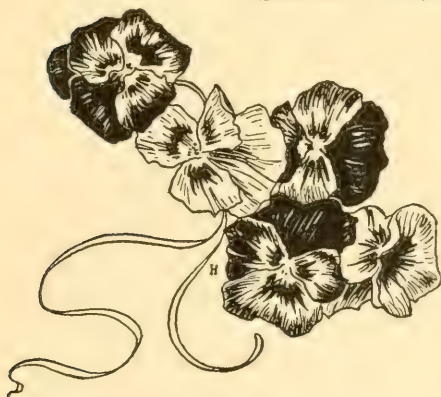
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Flowers are not always, but we may
Cut thorns and thistles any day.

E. NESBIT: Quand Même.

And the rose like a nymph to the bath addrest,
Which unveiled the depth of her glowing breast,
Till, fold after fold, to the fainting air,
The soul of her beauty and love lay bare.

SHELLEY: The Sensitive Plant.



I lie amid the Goldenrod,
I love to see it lean and nod;
I love to feel the grassy sod
Whose kindly breast will hold me last,
Whose patient arms will fold me fast!—
Fold me from sunshine and from song,
Fold me from sorrow and from wrong:
Through gleaming gates of Goldenrod
I'll pass into the rest of God.

MARY CLEMMER: Goldenrod.

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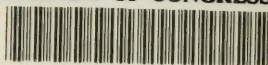
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